

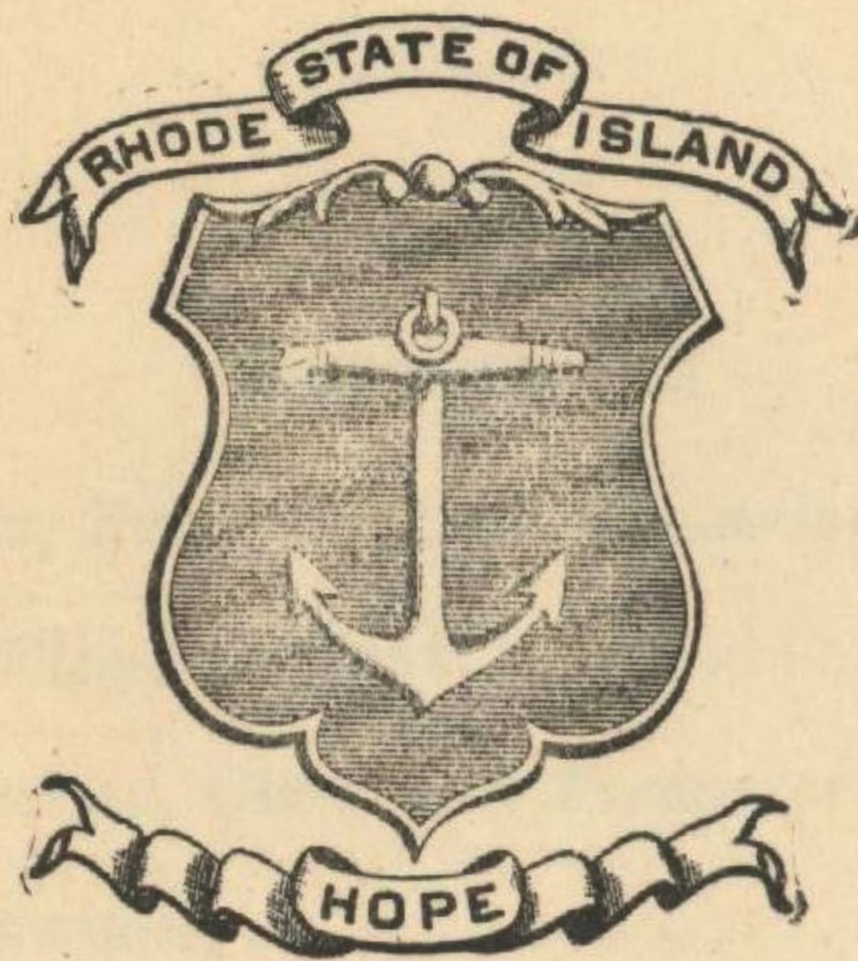
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Bulletin of Rhode Island State College.

VOL. XXII, No. 4

FOR FEBRUARY, 1927

REPORT OF THE BOARD OF MANAGERS



KINGSTON, R. I.

1927

PUBLISHED QUARTERLY BY THE COLLEGE
MAY, AUGUST, NOVEMBER, FEBRUARY

ENTERED AT KINGSTON, RHODE ISLAND, AS SECOND-CLASS MATTER

THE AUTO PRESS, PRINTERS, PAWTUCKET, R. I.

RHODE ISLAND STATE COLLEGE

Corporation

- HON. WALTER E. RANGER, *Pres.*, Com. of Education, *ex-officio*.....Providence
HON. ZENAS W. BLISS, *Vice-President*.....Providence Co., Providence
HON. ROBERT S. BURLINGAME, *Clerk and Treasurer*.....Newport Co., Newport
HON. THOMAS G. MATHEWSON.....Kent Co., East Greenwich
HON. CHARLES ESTES.....Bristol Co., Warren
HON. ROWLAND HAZARD.....Washington Co., Peace Dale
HON. I. L. SHERMAN, Member of State Board of Agriculture.....Newport

REPORT

*To His Excellency Aram J. Pothier, Governor, and the Honorable
General Assembly of the State of Rhode Island and Providence
Plantations, at its January Session, 1927:*

I have the honor to submit herewith the Thirty-ninth Annual Report of the Board of Managers of Rhode Island State College, as required by law.

WALTER E. RANGER,

President, Board of Managers.

REPORT OF THE PRESIDENT OF THE COLLEGE

To the Board of Managers, Rhode Island State College:

GENTLEMEN: I have the honor to submit the following as my report for the fiscal year 1926.

Limitation of Attendance

The policy of limiting our attendance to a student body numbering five hundred, as set forth in my report of last year, has been continued in operation during the year just closed. The procedure adopted and followed in 1925 as detailed in the report just mentioned has again been pursued during the year just closed. The number of upperclass students accepted for re-registration in September, 1926, was 339. This number, subtracted from 500, established the number of new matriculants as 161. The actual new admissions was 179. The number of applicants for admission this year was some 350, nearly all of whom measured up to the ordinary fifteen-unit requirement for admission. Careful inquiry and investigation in each case were made in order to determine what individuals among those applying seemed most likely to use successfully the opportunities available.

In the report of the registrar it will be noted that the total number of students accepted for the year 1925 was 517, including two short-course students. For 1926 the total number accepted is 518 with no short-course students in attendance. It is significant to note, however, that of the 517 of 1925 two hundred and four were entering students that year; while of the 518 of 1926 only one hundred and seventy-nine were matriculating for the first time. The meaning of this is that, while the number of applicants for entrance is increasing, the number that can be admitted into the freshman class is decreasing, because of the fact that the steadiness of attendance among the upperclass students is increasing.

A change in the proportion of the sexes is also observable. The 517 students of last year were made up of 424 men and 93 women, while the 518 students of this year show 403 men and 115 women. As a result of this change of proportion the home economics course shows the largest increase over last year, while the general science course shows some decrease.

The Bond Issue Referendum

The overshadowing feature of the year has been the submission of the referendum to the people on issuance of State bonds to the amount of \$600,000 for the purpose of providing funds for constructing buildings needed at the college.

In order that the history of the project from its inception to its completion last November may conveniently be found in one place, I am here bringing together all the facts pertaining to it.

In September, 1921, the agricultural and administration building originally appropriated for in 1917 and delayed by our entrance into the Great War and by subsequent adverse conditions was completed and occupied. Meanwhile the need for an engineering building had become more and more urgent; but it was not until January, 1924, that a request for an appropriation for such a building was actually presented. In view of the fact that other buildings equally necessary were contemplated, it was deemed best by the Finance Committee of the House of Representatives for that year to provide for a building program to include the engineering building by submitting to the people of the State a proposal for a bond issue amounting to \$600,000 to provide funds for carrying out this program. The measure was embodied in what was known as H. 860 Substitute A. It passed the House and was reported to the Senate. There it suffered the fate of all other State business and was not acted upon when the legislative year terminated.

It will be noted that the referendum proposal itself automatically deferred any provision for meeting a generally recognized need one year beyond the time originally contemplated in the request itself. For the measure, H. 860 Substitute A, even if acted upon favorably by the General Assembly of 1924, would have been placed before the people in the general election of November, 1924, and, if

it was successful in that election, the funds it authorized would still not have been available until made so by the General Assembly of 1925.

As the measure had failed in the Assembly of 1924, it was again introduced in the General Assembly of 1925. This time it was duly enacted into law. But as the biennial election did not again take place until November, 1926, nothing could further be done until the decision of the people at that time had been recorded. It remains still for the General Assembly of 1927 to make the funds available. What I have intended to point out through the foregoing summary of events is, that provision for urgent needs at the college in the way of a building program has already been delayed for three years, and I desire to urge that the funds for carrying out the building program be made available as promptly as possible.

The Referendum to the People.

The question submitted to the people on November 2, 1926, was as follows:

Rhode Island State College Loan: Shall the General Assembly be authorized and directed to provide for the issue of State bonds, not to exceed the amount of six hundred thousand dollars, for the construction, furnishing and equipping of new buildings and for other permanent improvements at the Rhode Island State College in the town of South Kingstown, said bonds to be issued from time to time in such amounts and upon such terms as the General Assembly may hereafter determine?

The answer of the people of the State at the election in November last was positive and decisive. In estimating the public's attitude in a matter of this kind the interest shown can best be determined by a comparison with results in similar proposals. It is a well known fact that the interest of the voters is much greater in the election of candidates for office than it is in the determination of measures proposed. It is not surprising, therefore, to find that of the 166,199 persons voting for Governor nearly sixty per cent. failed to vote at all on the referendum propositions on the ballot.

Of these propositions there were seven. It was naturally to be expected that of these the Washington Bridge loan, a necessity that evidenced itself to the senses not only of the citizens of Providence but also of practically every automobile driver in the State,

should receive the largest affirmative vote and the largest net vote of approval. The State College loan, however, came second in public approval, receiving only 3500 fewer affirmative votes than the Washington Bridge. On the other hand, our loan received 4200 more affirmative votes than did its next competitor for public approval, the Penal and Charitable Institutions loan, and 4600 more than the College of Education loan, which stood fourth on the list. It had 6800 more than the Bridge Construction loan, 16,900 more than the Second Court House loan and 20,000 more than the State Office Building loan.

Equally gratifying is a comparison of the results obtained by subtracting the number of negative votes in each case from the corresponding number of affirmative votes, in other words, the majority affirmative votes. The Washington Bridge majority is six thousand greater than that of the State College. On the other hand, the State College majority is 1600 greater than that of the Penal and Charitable Institutions, 5900 greater than that of the College of Education, 5300 greater than that of Bridge Construction, 19,400 greater than that of the Court House and 25,700 greater than that of the State Office Building.

A Definite Answer to a Challenge.

It is earnestly hoped that no one will consider the foregoing as in any degree intended to disparage the worth or minimize the importance of any of these various measures. Personally, I indicated my estimate of their public value by voting affirmatively for every one of them. Nor is it my purpose to indulge in any approach to invidious or boastful exultation. My desire is to draw attention to two facts: first, that this referendum, far from being a mere perfunctory act of the people, shows unmistakable evidence of having been carried out with marked discrimination and thoughtful care by the sixty-nine thousand people who marked their ballots; and, secondly, that it reveals a definite and purposeful intention to bestow recognition and approval upon the State College.

Over and over in the past it has been asserted that the State College is unknown among the people of the State, that they were not interested in it and cared nothing for it, that its purposes were

foreign to the functioning of our body politic and its ideals and theory unacceptable to the genius of our people.

Now these things cannot be said with any shadow of justification. The matter has been taken to the people and they have placed the maintenance and welfare of the State College second only to that of maintaining communication between the central parts of the commonwealth itself. They have ranged the State definitely in the ranks of the great majority, and by popular vote have determined that public state-wide support of higher education is a function of government second only to maintaining the organic existence and solidarity of the state itself.

A Referendum on the Continued Existence of the State College

From the very inception of the referendum idea as applied to the State College loan, we of the college have welcomed it, not merely as a method of obtaining money for necessary buildings, but also and above all as a means of placing the college itself before the people and ascertaining their desire concerning it. By oral and written statement everywhere we have explained the function and meaning of a State College. We have insisted that it is not in any degree an eleemosynary institution wherein society aids the deserving poor by providing for them a free education through which they may subsequently obtain for themselves a better living. In contrast and by way of exploding this naive and utterly unfounded idea, we have explained that a State College is the sacred ark of the covenant of humanity's civilization. It is the mechanism through which organized society functions in performing its part in the paramount duty of conserving, enlarging and transmitting to our children the priceless civilization which we ourselves hold, not in fee simple, but rather as an entailed heritage from all the ages, to be transmitted unimpaired to our descendants.

Incidentally it may be remarked that no real college has ever been self-supporting. The building and maintenance of colleges has always depended either on ecclesiastical beneficence, private benevolence or organized civic effort.

Such has been the line of argument used in whatever of campaigning we have been able to do for the bond issue. Everywhere and on all occasions the issue presented has been that of obtaining an expression from the people on the existence of the college and

on the readiness of the people to maintain it. There can be no question as to the character of the response obtained.

Wherever there has been opportunity addresses have been made, and in that connection I take this opportunity to acknowledge obligations to the radio stations of The Outlet Company and of The Shepard Stores for the courtesy of being allowed to speak to their unseen audiences. To hosts of friends, students, alumni, co-operators all and everywhere, gratitude is due and gladly rendered. The outcome has undoubtedly been brought about by their concerted efforts.

Finances

It has been my custom in these reports as supplementary to the report of the treasurer on the various funds of the college to summarize under this heading and in parallel columns the receipts and expenditures of the college proper. For the year 1926 the provisions of the act establishing the office of the Commissioner of Finance went into effect and new forms, classifications and headings were established. As required by this new law, we made on the fifteenth of December, 1926, the report of our financial transactions for the year ended November 30, 1926, in the form provided by the Commissioner, and summaries of this report under the new classifications appear in the treasurer's report hereto annexed along with his accounts with the various funds. For the sake of continuity I am again including here my own customary summary.

Requests for Funds

As has been stated in the financial report and estimate presented to the Commissioner of Finance and as will be seen from the summary next following, the college is asking for two amounts:

| | |
|----------------------------|-----------|
| (a) For maintenance | \$138,122 |
| (b) For improvements | 8,600 |

These sums may be compared with the corresponding items granted last year, viz.:

| | |
|----------------------------|-----------|
| (a) For maintenance | \$132,500 |
| (b) For improvements | 8,500 |

Detailed explanations of differences in the parallel items of the two years have been presented in the budget report.

RECEIPTS AND EXPENDITURES

| EXPENDITURES | 1924 | 1925 | Estimated for | |
|--------------------------------------|---------------------|---------------------|---------------------|---------------------|
| | | | 1926 | 1927 |
| 1. Advertising | \$138.00 | \$336.00 | \$248.50 | \$300.00 |
| 2. Apparatus | 2,190.01 | 2,319.92 | 1,441.12 | 2,000.00 |
| 3. Auto Supplies | 609.18 | 634.97 | 466.96 | 350.00 |
| 4. Books and Periodicals | 1,103.48 | 1,697.24 | 1,394.73 | 1,600.00 |
| 5. Commencement | 1,096.85 | 1,402.61 | 1,596.93 | 1,600.00 |
| 6. Construction and Repairs | 12,237.40 | 8,254.00 | 8,535.27 | 8,000.00 |
| 7. Electricity | 2,251.99 | 2,014.20 | 1,075.49 | 1,100.00 |
| 8. Entertainment | 872.26 | 1,132.46 | 1,047.91 | 1,000.00 |
| 9. Experiment Station Aid | 3,820.51 | 2,569.30 | 1,212.23 | |
| 10. Extension | 1,008.25 | 1,599.52 | 1,645.13 | 1,650.00 |
| 11. Feed | 5,476.50 | 8,125.13 | 7,124.04 | 7,500.00 |
| 12. Fertilizer | 635.49 | 988.62 | 690.74 | 1,050.00 |
| 13. Freight and Express | 1,027.72 | 1,025.58 | 1,009.93 | 1,000.00 |
| 14. Fuel | 13,216.68 | 15,928.49 | 17,659.43 | 18,500.00 |
| 15. Furniture | 772.72 | 1,136.29 | 980.70 | 2,845.00 |
| 16. Gasoline and Oil | 1,844.02 | 1,995.68 | 1,827.97 | 1,835.00 |
| 17. Janitor Supplies | 598.11 | 459.27 | 610.14 | 600.00 |
| 18. Labor | 33,006.77 | 36,777.14 | 36,002.68 | 36,400.00 |
| 19. Laboratory Supplies | 6,292.82 | 8,249.67 | 7,082.56 | 8,380.00 |
| 20. Lectures | | 866.93 | 304.73 | 500.00 |
| 21. Live Stock | | 739.00 | 50.00 | 125.00 |
| 22. Postage, Stationery and Printing | 2,987.38 | 3,643.35 | 4,005.34 | 4,000.00 |
| 23. Refunds | 1,552.46 | 135.67 | 75.20 | 100.00 |
| 24. Rentals | 4,453.80 | 3,888.00 | 4,333.50 | 4,350.00 |
| 25. Salaries | 112,457.29 | 117,505.14 | 126,847.60 | 133,502.00 |
| 26. Seed | 358.20 | 574.11 | 297.70 | 490.00 |
| 27. Telephone and Telegraph | 738.58 | 913.74 | 1,073.28 | 1,000.00 |
| 28. Tools and Machinery | 387.76 | 516.39 | 368.72 | 625.00 |
| 29. Traveling | 2,102.97 | 2,016.63 | 1,565.05 | 2,500.00 |
| 30. Veteran's Bureau | 532.75 | | | |
| 31. Miscellaneous | 3,066.14 | 3,051.82 | 3,490.93 | 2,920.00 |
| | <u>\$216,836.09</u> | <u>\$230,496.87</u> | <u>\$234,064.51</u> | <u>\$245,822.00</u> |

INCOME

| | | | | |
|--|---------------------|---------------------|---------------------|---------------------|
| Morrill Fund carried over from previous year | \$13,876.57 | \$27,232.22 | \$26,561.58 | \$33,565.70 |
| Morrill Fund 1890 | 50,000.00 | 50,000.00 | 50,000.00 | 50,000.00 |
| Morrill Fund 1862 | 2,000.00 | 2,000.00 | 2,000.00 | 2,000.00 |
| Current Fund | 50,692.52 | 52,326.23 | 56,068.63 | 55,500.00 |
| State Maintenance | 126,999.22 | 125,000.00 | 132,500.00 | 138,122.00 |
| | <u>\$244,068.31</u> | <u>\$257,058.45</u> | <u>\$267,630.21</u> | <u>\$279,687.70</u> |
| Deduct Expenditures | 216,836.09 | 230,496.87 | 234,064.51 | 245,722.00 |
| Morrill Fund carried forward | \$27,232.22 | \$26,561.58 | \$33,565.70 | \$33,865.70 |

Special items asked for:

| | |
|------------------------------------|-------------------|
| Truck Repairs | \$700.00 |
| Truck Body | 250.00 |
| Department Books | 1,400.00 |
| Gas range and Protane installation | 750.00 |
| Oil heating for Greenhouse | 4,000.00 |
| Oil range installment in East Hall | 1,500.00 |
| | <u>\$8,600.00</u> |

RECEIPTS AND EXPENDITURES

| EXPENDITURES | Estimated for | | | |
|--|---------------------|---------------------|---------------------|---------------------|
| | 1924 | 1925 | 1926 | 1927 |
| 1. Advertising | \$138.00 | \$336.00 | \$248.50 | \$300.00 |
| 2. Apparatus | 2,190.01 | 2,319.92 | 1,441.12 | 2,000.00 |
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| 6. Construction and Repairs..... | 12,237.40 | 8,254.00 | 8,535.27 | 8,000.00 |
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| 8. Entertainment | 872.26 | 1,132.46 | 1,047.91 | 1,000.00 |
| 9. Experiment Station Aid..... | 3,820.51 | 2,569.30 | 1,212.23 | |
| 10. Extension | 1,008.25 | 1,599.52 | 1,645.13 | 1,650.00 |
| 11. Feed | 5,476.50 | 8,125.13 | 7,124.04 | 7,500.00 |
| 12. Fertilizer | 635.49 | 988.62 | 690.74 | 1,050.00 |
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| 23. Refunds | 1,552.46 | 135.67 | 75.20 | 100.00 |
| 24. Rentals | 4,453.80 | 3,888.00 | 4,333.50 | 4,350.00 |
| 25. Salaries | 112,457.29 | 117,505.14 | 126,847.60 | 133,502.00 |
| 26. Seed | 358.20 | 574.11 | 297.70 | 490.00 |
| 27. Telephone and Telegraph..... | 738.58 | 913.74 | 1,073.28 | 1,000.00 |
| 28. Tools and Machinery..... | 387.76 | 516.39 | 368.72 | 625.00 |
| 29. Traveling | 2,102.97 | 2,016.63 | 1,565.05 | 2,500.00 |
| 30. Veteran's Bureau | 532.75 | | | |
| 31. Miscellaneous | 3,066.14 | 3,051.82 | 3,490.93 | 2,920.00 |
| | <u>\$216,836.09</u> | <u>\$230,496.87</u> | <u>\$234,064.51</u> | <u>\$245,822.00</u> |

INCOME

| | | | | |
|---|---------------------|---------------------|---------------------|---------------------|
| Morrill Fund carried over from previous year..... | \$13,876.57 | \$27,232.22 | \$26,561.58 | \$33,565.70 |
| Morrill Fund 1890..... | 50,000.00 | 50,000.00 | 50,000.00 | 50,000.00 |
| Morrill Fund 1862..... | 2,000.00 | 2,000.00 | 2,000.00 | 2,000.00 |
| Current Fund | 50,692.52 | 52,326.23 | 56,068.63 | 55,500.00 |
| State Maintenance | 126,999.22 | 125,000.00 | 132,500.00 | 138,122.00 |
| | <u>\$244,068.31</u> | <u>\$257,058.45</u> | <u>\$267,630.21</u> | <u>\$279,687.70</u> |
| Deduct Expenditures | 216,836.09 | 230,496.87 | 234,064.51 | 245,722.00 |
| Morrill Fund carried forward..... | \$27,232.22 | \$26,561.58 | \$33,565.70 | \$33,865.70 |

Special items asked for:

| | |
|---|-------------------|
| Truck Repairs | \$700.00 |
| Truck Body | 250.00 |
| Department Books | 1,400.00 |
| Gas range and Protane installation..... | 750.00 |
| Oil heating for Greenhouse..... | 4,000.00 |
| Oil range installment in East Hall..... | 1,500.00 |
| | <u>\$8,600.00</u> |

Death of Doctor May

Just at the end of the year Dr. Henry G. May, occupying the dual relation of professor of bacteriology and head of the department of animal breeding and pathology in the experiment station, was taken ill and, on December 23, he died at the South County Hospital.

Dr. May was a young man of fine character and attainments. He was successfully carrying on a large and important work and his sudden demise is felt as a great loss to the college and the community. Following are resolutions adopted by the faculty:

WHEREAS, the earthly life of our colleague and friend, Dr. Henry Gustav May, has come to a sudden end when his activity was at its highest, and his usefulness and services were becoming increasingly valuable, and

WHEREAS, during the six years that he was at this institution he won by his congenial nature, sterling character, high scholarship, and unflagging industry the highest esteem of his colleagues on the college faculty and experiment station staff, and

WHEREAS, his kindly disposition and helpfulness in all relations with both students and members of the faculty earned for him their warm affection and genuine admiration, and

WHEREAS, his death in middle life when his ripening powers gave great promise of many years of useful and productive effort is a great loss to the institution which he served and to the cause of scientific research in which he was engaged, therefore be it

RESOLVED, that we, the members of the college faculty and the experiment station staff, hereby record our keen sense of loss and deep personal grief at his untimely death, and be it further

RESOLVED, that we extend to his family our sincere sympathy for their inestimable loss, and

RESOLVED, that these resolutions be recorded in the minutes of this faculty, and that a copy be sent to his wife and family.

JOHN BARLOW,
HAROLD W. BROWNING,
BASIL E. GILBERT,
Committee.

Changes in Personnel

Miss Alice L. Edwards, Dean of Women and Home Economics, was released February 15, at her own request to accept a position in Washington, D. C., in connection with the National Home Economics Association. Miss Helen E. Peck, Professor of English Literature, was made Acting Dean of Women for the remainder of the college year, and in September she received permanent appointment as Dean of Women. Mrs. W. L. Hines, investigator in home economics, took over two classes in home economics for the second semester, allotting one-third of her time to experimentation work and two-thirds to teaching. In September Mrs. Hines was transferred entirely to teaching work, and Miss Margaret Whittemore, B. S. and A. M., Columbia University, was appointed Professor of Dietetics and Investigator in Home Economics.

Miss Marian E. Deats, instructor in botany, resigned at the close of the year and the vacancy was filled by the appointment of Miss Miriam A. Cargill, B. S., R. I. S. C. and M. S., University of Wisconsin. Miss Cargill was research assistant at the Carnegie Institution for Experimental Evolution at Cold Spring Harbor, N. Y., for 1925-1926.

Miss Julia I. Foster, instructor in modern language, resigned and Mr. Frank Karbaum, graduate of the Normal Department of Northwestern University, who has had twelve years of service with the Massachusetts Civil Service Commission as inspector and assistant chief examiner, as well as several years of successful teaching, was appointed in her place.

Mr. Clarence E. Brett, instructor in poultry, desired to go into practical work and presented his resignation in June. He was succeeded by Mr. Crawford P. Hart, B. S., R. I. S. C., who has been with the Federal Board for Vocational Education since 1921. Previous to this time, he was instructor in agriculture at the Riggs School in Lakeville, Conn., and Principal of the high school at Waterbury, Vermont.

Mr. Kenneth Goodner, instructor in bacteriology, resigned and his place was filled by George A. Cruickshank, B. S., R. I. S. C., and M. S., Brown University.

Mr. Frederick Bauer, instructor in zoology, resigned at the close of the year, and Mr. Herbert M. Emery, B. S., Mass. Agr. College,

was appointed as instructor in zoology and geology. Mr. Emery has done graduate work at Mass. Agr. College and at Cornell University, and was instructor in zoology and geology at the University of New Hampshire from 1921-1926.

In order to take up graduate work, Mr. Cecil L. Brown presented his resignation as instructor in chemistry and Mr. Stanley W. Hetherington was appointed to succeed him. Mr. Hetherington was graduated at McGill University, with the degree of B. Sc., having previously been a grade-school teacher in Windsor, Vermont, Simbury, Conn., and Barton, Vermont.

Miss Clara Mae Taylor, instructor in home economics, resigned June 1.

Miss Winifred Hazen, instructor in institutional management and in charge of the women's boarding department, resigned and Miss Helen A. Searles was appointed to fill the vacancy.

Just before the opening of the college year, Mr. Philip E. Bunker, assistant professor of business administration, resigned his position. The increased amount of work in this department necessitated the appointment of two instructors, Mr. Robert Rockafellow, B. S., Wharton School of Business Administration, and Mr. Harry M. Ireland, B. S., Columbia University.

Mr. Leo J. Hardin resigned as assistant in chemistry in the experiment station and Mr. Robert A. Greene, B. A., Univ. of Arkansas, M. S., Oklahoma College of Agriculture and Mechanic Arts, was appointed to succeed him.

Mr. Lloyd L. Tower, assistant professor of mechanical engineering, resigned and Mr. Charles H. Wales, B. S., R. I. S. C., was appointed instructor in mechanical engineering.

Commencement

The Commencement exercises were duly held on June 19, 20, 21, with a large number of alumni returning for the occasion. If the public interest in these occasions continues to increase, we shall have to issue tickets for seats at the graduating exercises. The graduating class numbered sixty-five. The degree of Master of Arts, honoris causa, was conferred on former Governor Charles Dean Kimball. Commissioner Francis Grant Blair of Illinois and

Commissioner Ernest Warren Butterfield of New Hampshire received the honorary degree of Doctor of Education.

The baccalaureate address for the Sunday of the 20th was given by the writer under the title "Casting Out Devils". There were two addresses on Commencement Day, one by Dr. Ernest W. Butterfield on "A Puritan Tenet", the other by Dr. Francis G. Blair on "The Face at the Window".

The foregoing is respectfully submitted.

HOWARD EDWARDS,

President.

January 15, 1927.

| Class | Agri. | Engineering | | | | | Gen. Sci. | Home Ec. | Bus. Ad. | Edu. | Total |
|--------------------|-----------|-------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|----------|------------|
| | | Civil | Chem. | Elec. | Mech. | Total | | | | | |
| Graduate .. | — | — | — | — | 1 | 1 | 2 | — | — | — | 3 |
| Senior | 4 | 9 | 3 | 14 | 13 | 39 | 21 | 14 | 16 | — | 94 |
| Junior | 7 | 14 | 6 | 20 | 4 | 44 | 13 | 18 | 15 | — | 97 |
| Sophomore | 6 | 9 | 11 | 28 | 14 | 62 | 23 | 24 | 23 | — | 138 |
| Freshman .. | 5 | — | — | — | — | 74 | 26 | 31 | 32 | — | 168 |
| Irregular .. | 1 | — | — | — | — | — | 8 | 1 | 5 | 3 | 18 |
| Grand Total | 23 | 32 | 20 | 62 | 32 | 220 | 93 | 88 | 91 | 3 | 518 |

| | Men | Women |
|---|-----|-------|
| Students boarding at the college..... | 288 | 94 |
| Students not boarding at the college..... | 115 | 21 |

Home Residence of Students

A. Resident outside of the State:

| | | | |
|-----------------------|-------|----------------------|----|
| Connecticut: | | Auburndale | 1 |
| East Hartford | 1 | Barrowville | 1 |
| Essex | 1 | Brockton | 15 |
| Mystic | 1 | Campello | 1 |
| New Haven | 2 | Chatham | 1 |
| New London | 4 | Chicopee Falls..... | 2 |
| Norwichtown | 1 | Chilmark | 1 |
| South Windsor | 1 | Dedham | 1 |
| Waterbury | 1 | Fairhaven | 2 |
| West Hartford | 1 | Fall River | 3 |
| | <hr/> | Gardner | 1 |
| | 13 | Holyoke | 4 |
| Maine: | | Hyde Park | 2 |
| Bridgeton | 1 | Islington | 1 |
| North Waterford | 1 | Malden | 1 |
| Sutton | 1 | Middleboro | 3 |
| | <hr/> | New Bedford | 4 |
| | 3 | Newtonville | 1 |
| Maryland: | | North Attleboro..... | 1 |
| Baltimore | 1 | Rehoboth | 1 |
| Massachusetts: | | Revere | 1 |
| Attleboro | 2 | Roslindale | 1 |

| | | | |
|--|-----------|-----------------------|------------|
| Sandwich | 1 | Passaic | 2 |
| Seekonk | 1 | Plainfield | 1 |
| South Hadley..... | 1 | Ridgewood | 1 |
| Springfield | 2 | | <u>5</u> |
| Turner Falls | 1 | | |
| Vineyard | 1 | New Hampshire: | |
| Webster | 3 | Nashua | 2 |
| West Bridgewater..... | 1 | New York: | |
| Whitman | 1 | Jamaica | 1 |
| Willimansett | 1 | New Rochelle..... | 1 |
| Worcester | 1 | | <u>2</u> |
| | <u>65</u> | | |
| Minnesota: | | Pennsylvania: | |
| Karlstead | 1 | Sunbury | 1 |
| New Jersey: | | Porto Rico: | |
| Linden | 1 | Ponce | 1 |
| | | | |
| Total attendance from without the State..... | | | 94 |
| B. Resident in Rhode Island by Counties and Towns: | | | |
| Bristol: | | Central Falls..... | 9 |
| Barrington | 3 | Cranston | 10 |
| Bristol | 5 | Cumberland | 3 |
| Warren | 4 | East Providence..... | 25 |
| | <u>12</u> | Johnston | 1 |
| Kent: | | Lincoln | 5 |
| Coventry | 2 | North Providence..... | 3 |
| East Greenwich..... | 5 | Pawtucket | 35 |
| Warwick | 6 | Providence | 170 |
| West Warwick..... | 8 | Scituate | 1 |
| | <u>21</u> | Smithfield | 1 |
| | | Woonsocket | 8 |
| | | | <u>276</u> |
| Newport: | | Washington: | |
| Jamestown | 5 | Charlestown | 1 |
| Little Compton..... | 3 | Hopkinton | 1 |
| Middletown | 1 | North Kingstown | 9 |
| Newport | 33 | South Kingstown | 28 |
| Portsmouth | 1 | Westerly | 29 |
| Tiverton | 3 | Narragansett | 1 |
| | <u>46</u> | | <u>69</u> |
| Providence: | | | |
| Burrillville | 5 | | |
| Total attendance from within the State..... | | | 424 |

Preparatory Schools Represented in Registration of Freshman Class

| | | | |
|--|-------|---------------------------------|-------|
| In Rhode Island: | | In Maine: | |
| Bristol | 2 | Bridgton High..... | 1 |
| Burrillville | 1 | North Bridgton: | |
| Central Falls..... | 3 | Bridgeton Academy..... | 1 |
| Cranston | 8 | Southwest Harbor High..... | 1 |
| Cumberland | 1 | | <hr/> |
| East Greenwich Academy..... | 4 | | 3 |
| East Providence | 4 | In Massachusetts: | |
| Little Compton | 1 | Boston: | |
| Newport—Rogers High..... | 8 | English High..... | 1 |
| North Kingstown..... | 2 | Huntington School..... | 1 |
| Pawtucket | 11 | Brockton High | 3 |
| Providence: | | Chicopee High..... | 1 |
| Classical | 1 | Dedham High | 1 |
| Commercial | 1 | East Hampton: | |
| Hope Street..... | 2 | Williston Academy..... | 1 |
| LaSalle Academy | 1 | Fairhaven High..... | 1 |
| Technical | 47 | Fall River, B. M. C. Durfee.... | 4 |
| Y. M. C. A. Day Prep. School. | 3 | Newtonville: | |
| South Kingstown | 8 | Newton High..... | 2 |
| Warren | 3 | North Attleboro High..... | 1 |
| West Warwick..... | 7 | Norton High | 1 |
| Westerly | 7 | Sandwich High..... | 1 |
| Woonsocket | 3 | Springfield: | |
| | <hr/> | Cathedral High..... | 1 |
| | 128 | Springfield Technical..... | 1 |
| In Connecticut: | | Vineyard Haven: | |
| New London: | | Tisbury High..... | 2 |
| Eulkeley High..... | 1 | Worcester, South High..... | 1 |
| Chapman Technical | 1 | | <hr/> |
| Stonington High..... | 1 | | 23 |
| Waterbury, Crosby High..... | 1 | | |
| | <hr/> | | |
| | 4 | In New Hampshire: | |
| In Georgia: | | Nashua High..... | 2 |
| Gainesville: | | In New Jersey: | |
| Riverside Military Acad..... | 1 | Linden High..... | 1 |
| Total number students received from high school..... | | | |
| | | | 162 |
| Total number re-classified and repeating work | | | 4 |
| Total number transferred from other colleges..... | | | 2 |
| | | | <hr/> |
| Total classified as freshmen..... | | | 168 |

| | Units credited | | | Conditioned in required subject | | No con- ditions | Accepted total |
|--|-------------------------------|-----|----|---------------------------------|--------|--------------------|-------------------|
| | 15 or more | 14½ | 14 | 1 unit | ½ unit | | |
| | Received from High Schools | 158 | 1 | 3 | 24 |  |  | 18 | 120 | 162 |

Average age of men and women, Oct. 1, 1926....18 years, 8 months, 1 day
 Age of youngest member of class, Oct. 1, 1926...16 years, 8 months, 15 days
 Age of oldest member of class, Oct. 1, 1926.....23 years, 5 months, 15 days

REPORT OF THE TREASURER

R S. BURLINGAME, Treasurer, in account with the different funds of RHODE ISLAND STATE COLLEGE for the year ending
November 30, 1926.

| EXPENDITURES | Morrill 1890 | Morrill 1862 | Smith- Lever | State Main- tenance | Repairs and Im- provements | Current | Trust | Totals |
|--|-----------------|-----------------|-----------------|---------------------------|----------------------------------|----------|------------|------------|
| Advanced Herd Registry. | | | | | | | \$2,690.59 | \$2,690.59 |
| Advertising in Publications. | | | | \$31.00 | | \$217.50 | | 248.50 |
| Apparatus. | | | \$977.28 | 915.09 | | 526.03 | | 2,418.40 |
| Auto Service. | | | | 380.50 | | 86.46 | | 466.96 |
| Boarding. | | | | | | | 96,518.92 | 96,518.92 |
| Books and Periodicals. | | | | 309.99 | | 1,084.74 | | 1,394.73 |
| Commencement. | | | | 885.40 | | 711.53 | | 1,596.93 |
| Construction and Repairs. | | | | 7,187.76 | | 1,347.51 | | 8,535.27 |
| Construction and Repairs, Special. | | | | | \$8,500.00 | | | 8,500.00 |
| Dormitory and Land Rental. | | | | 500.00 | | 3,833.50 | | 4,333.50 |
| Electric Current Furnished. | | | | | | 1,075.49 | | 1,075.49 |
| Entertainment. | | | | 75.00 | | 972.91 | | 1,047.91 |
| Evening Schools. | | | | | | | 299.96 | 299.96 |
| Experiment Station Aid. | | | | 921.82 | | 290.41 | | 1,212.23 |
| Extension Offset. | | | | 1,043.84 | | 601.29 | | 1,645.13 |
| Feed. | | | | 6,103.34 | | 1,020.70 | | 7,124.04 |
| Fertilizers. | | | | 690.74 | | | | 690.74 |
| Freight and Express. | | | | | | 1,009.93 | | 1,009.93 |
| Fuel. | | | | 13,403.40 | | 4,256.03 | | 17,659.43 |
| Furniture. | | | | 708.30 | | 272.40 | | 980.70 |
| Furniture Sales. | | | | | | | 605.21 | 605.21 |
| Gasoline and Oil. | | | | 392.24 | | 30.48 | | 422.72 |
| Gasoline and Oil, Auto. | | | | 1,334.41 | | 70.84 | | 1,405.25 |
| Janitor Supplies. | | | | 518.69 | | 91.45 | | 610.14 |
| Labor (Engineers, Farm, etc.). | | | 102.10 | 25,695.22 | | 4,219.50 | | 30,016.82 |

REPORT OF THE TREASURER.

| EXPENDITURES | 1890 Morrill | 1862 Morrill | Lever Smith- | State Main- tenance | Repairs and Im- provements | Current | Trust | Totals |
|-------------------------------|--------------------|-------------------|--------------------|---------------------------|----------------------------------|--------------------|---------------------|---------------------|
| Labor (Undergraduate) .. | | | | | | 6,087.96 | | 6,087.96 |
| Laboratory Supplies | | | | 3,629.66 | | 3,452.90 | | 7,082.56 |
| Live Stock | | | | 50.00 | | | | 50.00 |
| Military Sales | | | | | | | 1,198.83 | 1,198.83 |
| Postage, Stationery | | | 745.49 | 2,394.04 | | 1,611.30 | | 4,750.83 |
| Poultry Testing | | | | | | | 784.98 | 784.98 |
| Refunds | | | | | | 75.20 | | 75.20 |
| Salaries | \$43,594.24 | \$2,500.00 | 8,214.25 | 62,490.47 | | 18,262.89 | | 135,061.85 |
| Seeds and plants | | | | 147.91 | | 149.79 | | 297.70 |
| Stable Supplies | | | | | | 34.75 | | 34.75 |
| Store | | | | | | | 12,774.41 | 12,774.41 |
| Telephone and Telegraph | | | .20 | | | 1,073.28 | | 1,073.48 |
| Tools and Machinery | | | | 294.08 | | 74.64 | | 368.72 |
| Traveling | | | 1,727.48 | 869.63 | | 695.42 | | 3,292.53 |
| Miscellaneous | | | | 1,527.47 | | 2,233.44 | | 3,760.91 |
| | <u>\$43,594.24</u> | <u>\$2,500.00</u> | <u>\$11,766.80</u> | <u>\$132,500.00</u> | <u>\$8,500.00</u> | <u>\$55,470.27</u> | <u>\$114,872.90</u> | <u>\$369,204.21</u> |

| RECEIPTS | Morrill 1890 | Morrill 1862 | Smith- Lever | State Main- tenance | Repairs and Im- provements | Current | Reserve | Trust | Totals |
|---|--------------------|-------------------|--------------------|---------------------------|----------------------------------|--------------------|-------------------|---------------------|---------------------|
| Balance on hand Novem- ber, 1925 | \$26,560.92 | ..... | \$1,704.00 | ..... | ..... | \$ .66 | \$2,000.00 | \$7,283.52 | \$37,549.10 |
| Federal Appropriation, 1925-26 | 50,000.00 | \$2,500.00 | 11,598.82 | ..... | ..... | ..... | ..... | ..... | 64,098.82 |
| State Appropriation ..... | ..... | ..... | ..... | \$132,500.00 | \$8,500.00 | ..... | ..... | ..... | 141,000.00 |
| Department Sales..... | ..... | ..... | ..... | ..... | ..... | 25,258.14 | ..... | ..... | 25,258.14 |
| Department Service..... | ..... | ..... | ..... | ..... | ..... | 1,707.35 | ..... | ..... | 1,707.35 |
| Interest..... | ..... | ..... | ..... | ..... | ..... | 1,079.84 | ..... | ..... | 1,079.84 |
| Dormitory Fees..... | ..... | ..... | ..... | ..... | ..... | 7,869.30 | ..... | ..... | 7,869.30 |
| Department Fees..... | ..... | ..... | ..... | ..... | ..... | 5,306.02 | ..... | ..... | 5,306.02 |
| Laboratory Sales..... | ..... | ..... | ..... | ..... | ..... | 6,743.29 | ..... | ..... | 6,743.29 |
| Tuition ..... | ..... | ..... | ..... | ..... | ..... | 4,518.50 | ..... | ..... | 4,518.50 |
| Vocational Board..... | ..... | ..... | ..... | ..... | ..... | 2,261.48 | ..... | ..... | 2,261.48 |
| Commencement..... | ..... | ..... | ..... | ..... | ..... | 471.05 | ..... | ..... | 471.05 |
| Boarding ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 93,031.83 | 93,031.83 |
| Store ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 12,604.64 | 12,604.64 |
| Advanced Dairy Registry..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2,826.27 | 2,826.27 |
| Poultry Testing..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 738.30 | 738.30 |
| Military Sales..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2,340.25 | 2,340.25 |
| Furniture Sales..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 685.49 | 685.49 |
| Evening Schools..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 300.00 | 300.00 |
| Miscellaneous..... | ..... | ..... | ..... | ..... | ..... | 853.66 | ..... | ..... | 853.66 |
| | <u>\$76,560.92</u> | <u>\$2,500.00</u> | <u>\$13,302.82</u> | <u>\$132,500.00</u> | <u>\$8,500.00</u> | <u>\$56,069.29</u> | <u>\$2,000.00</u> | <u>\$119,810.30</u> | <u>\$411,243.33</u> |
| Expenditures | 43,594.24 | 2,500.00 | 11,766.80 | 132,500.00 | 8,500.00 | 55,470.27 | ..... | 114,872.90 | 369,204.21 |
| Balance, November 30, 1926 | \$32,966.68 | ..... | \$1,536.02 | ..... | ..... | \$599.02 | \$2,000.00 | \$4,937.40 | \$42,039.12 |

AGRICULTURAL EXPERIMENT STATION

| EXPENDITURES | Hatch | Adams | Purnell | Miscellaneous | Feeding Stuffs | Fertilizer Control | College Aid | Total |
|------------------------------|-------------|-------------|-------------|---------------|-------------------|-----------------------|----------------|-------------|
| Overdraft | | \$1,833.75 | \$1,170.02 | ..... | ..... | ..... | ..... | \$3,003.77 |
| Building and Land..... | \$187.66 | 120.69 | 320.74 | \$475.69 | ..... | \$17.40 | ..... | 1,122.18 |
| Communication Service..... | 78.89 | 1.90 | 99.33 | 63.34 | ..... | ..... | ..... | 243.46 |
| Feeding Stuffs..... | 349.73 | 646.68 | 2,273.05 | 347.42 | ..... | ..... | \$151.88 | 3,768.76 |
| Fertilizers | 1,138.20 | ..... | 25.00 | 43.70 | ..... | ..... | ..... | 1,206.90 |
| Furniture | 14.25 | 3.00 | 657.10 | ..... | ..... | ..... | ..... | 674.35 |
| Heat, Light, Water & Power. | 134.24 | 314.39 | 440.28 | 145.50 | \$51.09 | 186.67 | 98.03 | 1,370.20 |
| Labor | 2,583.80 | 3,358.30 | 2,629.43 | 2,201.74 | 208.33 | 325.00 | 170.73 | 11,477.33 |
| Library | 192.02 | 121.30 | 53.00 | ..... | ..... | ..... | ..... | 366.32 |
| Live Stock..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Publications | 1,060.86 | ..... | 561.21 | 53.50 | 85.00 | 120.00 | ..... | 1,880.57 |
| Salaries | 8,061.56 | 7,511.85 | 16,030.44 | 2,355.96 | 793.02 | 2,422.38 | 779.59 | 37,954.80 |
| Scientific Equipment..... | ..... | 85.65 | 7.17 | ..... | 5.58 | ..... | ..... | 98.40 |
| Scientific Supplies..... | 3.87 | 194.42 | 176.99 | 12.63 | 38.04 | 112.91 | ..... | 538.86 |
| Stationery & Office Supplies | 99.16 | 1.19 | 127.19 | 38.63 | 10.50 | 7.50 | ..... | 284.17 |
| Sundry Supplies..... | 484.15 | 45.39 | 191.61 | 79.93 | 5.39 | 4.82 | ..... | 811.29 |
| Tools and Machinery..... | 241.52 | 47.00 | 80.35 | 21.99 | 4.12 | 2.10 | ..... | 397.08 |
| Transportation | 187.96 | 28.44 | 82.67 | 469.34 | 1.78 | 13.05 | 12.00 | 795.24 |
| Traveling | 114.77 | 58.27 | 270.57 | 168.46 | 92.15 | 159.05 | ..... | 863.27 |
| Contingent Expenses..... | 33.25 | 5.00 | 20.50 | 41.46 | 5.00 | 5.00 | ..... | 110.21 |
| | \$14,965.89 | \$14,377.22 | \$25,216.65 | \$6,519.29 | \$1,300.00 | \$3,375.88 | \$1,212.23 | \$66,967.16 |

| RECEIPTS | Hatch | Adams | Purnell | Miscellaneous | Feeding Inspection | Fertilizer Control | *College Aid | Totals |
|----------------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| Balance on Hand..... | \$2,450.96 | ..... | ..... | \$972.93 | ..... | ..... | ..... | \$3,423.89 |
| Federal Appropriation..... | 15,000.00 | \$15,000.00 | \$25,000.00 | ..... | ..... | ..... | ..... | 55,000.00 |
| State Appropriation..... | ..... | ..... | ..... | ..... | \$1,300.00 | ..... | ..... | 1,300.00 |
| College Funds... .. | ..... | ..... | ..... | ..... | ..... | ..... | \$1,212.23 | 1,212.23 |
| Fees ..... | ..... | ..... | ..... | ..... | ..... | \$3,376.00 | ..... | 3,376.00 |
| Department Sales. .... | ..... | ..... | ..... | 6,612.46 | ..... | ..... | ..... | 6,612.46 |
| Department Service ..... | ..... | ..... | ..... | 265.51 | ..... | ..... | ..... | 265.51 |
| Interest ..... | ..... | ..... | ..... | 95.11 | ..... | ..... | ..... | 95.11 |
| | <u>\$17,450.96</u> | <u>\$15,000.00</u> | <u>\$25,000.00</u> | <u>\$7,946.01</u> | <u>\$1,300.00</u> | <u>\$3,376.00</u> | <u>*\$1,212.23</u> | <u>\$71,285.20</u> |
| Expenditures | 14,965.89 | 14,377.22 | 25,216.65 | 6,519.29 | 1,300.00 | 3,375.88 | 1,212.23 | 66,967.16 |
| Balance, November 30, 1926 | \$2,485.07 | \$622.78 | \$216.65DR. | \$1,426.72 | ..... | \$0.12 | ..... | \$4,318.04 |

*Included in College Schedule under Maintenance and Current Funds.

I hereby certify that the above is correct and true, and truly represents the details of expenditures for the period and by the institution named.

R. S. BURLINGAME,

Treasurer.

This is to certify that we, the undersigned, Auditing Committee of the Board of Managers of Rhode Island State College, have examined the accounts of R. S. Burlingame, Treasurer of said college, and find the same correct.

THOS. G. MATHEWSON,

CHARLES ESTES,

Auditors.

SUMMARY

OF REPORTS ON RECEIPTS AND EXPENDITURES FILED DECEMBER 15, 1926, WITH
THE STATE COMMISSIONER OF FINANCE.

| EXPENDITURES | Morrill, State Maintenance and Current Funds | Smith- Lever | Trust | Special Appro- priation |
|---|---|-----------------|-------------|-------------------------------|
| Salaries | \$126,847.60 | \$8,214.25 | \$18,000.00 | ..... |
| Labor (Undergraduate)... | 5,973.58 | ..... | 8,312.82 | ..... |
| Labor (Additional)..... | 30,029.10 | ..... | 1,536.54 | ..... |
| Special Services | 304.72 | ..... | ..... | ..... |
| Dairy Herd Testing..... | ..... | ..... | 2,105.89 | ..... |
| Poultry Testing ..... | ..... | ..... | 38.54 | ..... |
| Traveling Expenses..... | 1,565.05 | 1,727.48 | 977.47 | ..... |
| Freight, Express, Cartage.. | 1,009.93 | ..... | 1,068.80 | ..... |
| Telephone and Telegraph.. | 1,073.28 | .20 | ..... | ..... |
| Postage ..... | ..... | ..... | 23.01 | ..... |
| Advertising | 248.50 | ..... | ..... | ..... |
| Light (Purchased)..... | 1,075.49 | ..... | ..... | ..... |
| Oil and Grease (Motors).. | 1,405.25 | ..... | ..... | ..... |
| Repairs (Motors)..... | 466.96 | ..... | ..... | ..... |
| Books and Periodicals..... | 1,394.73 | 29.84 | ..... | ..... |
| Commencement | 1,596.93 | ..... | ..... | ..... |
| Entertainment | 1,047.91 | ..... | ..... | ..... |
| Experiment Station Aid.... | 1,212.23 | ..... | ..... | ..... |
| Extension Service, Supple- mentary to Smith-Lever. | 1,645.13 | ..... | ..... | ..... |
| Refunds | 75.20 | ..... | 3,929.94 | ..... |
| Dormitory Rentals..... | 4,333.50 | ..... | ..... | ..... |
| Stable Supplies..... | 34.75 | ..... | ..... | ..... |
| Uniforms ..... | ..... | ..... | 1,088.86 | ..... |
| Miscellaneous | 2,599.33 | ..... | 561.49 | ..... |
| Forage | 7,124.04 | ..... | ..... | ..... |
| Fuel | 17,659.43 | ..... | 1,844.04 | ..... |
| Postage and Stationery.... | 4,005.34 | 653.35 | ..... | ..... |
| Sanitary Supplies..... | 610.14 | ..... | ..... | ..... |
| Laboratory Supplies | 7,294.46 | ..... | ..... | ..... |
| Tools and Machinery..... | 368.72 | 16.59 | ..... | ..... |
| Moving Pictures..... | 856.85 | ..... | ..... | ..... |
| Seeds | 297.70 | ..... | ..... | ..... |
| Fertilizers | 690.74 | ..... | ..... | ..... |
| Lubricating Oils and Greases | 210.82 | ..... | ..... | ..... |
| Food ..... | ..... | ..... | 57,407.29 | ..... |

| EXPENDITURES | Morrill, State Maintenance and Current Funds | Smith- Lever | Trust | Special Appro- priation |
|---|---|-----------------|-----------|-------------------------------|
| Laundry ..... | ..... | ..... | 1,668.77 | ..... |
| Ice ..... | ..... | ..... | 157.56 | ..... |
| Book and Stationery Store. .... | ..... | ..... | 12,787.57 | ..... |
| Other Supplies ..... | ..... | 194.24 | ..... | ..... |
| Repairs, Materials & Labor (Buildings) | 8,535.27 | ..... | 141.75 | ..... |
| Replacements (Furnishings) ..... | ..... | ..... | 3,037.03 | ..... |
| Apparatus | 1,441.12 | ..... | ..... | ..... |
| Furniture (Office, etc.).... | 980.70 | 930.85 | ..... | ..... |
| Livestock | 50.00 | ..... | ..... | ..... |
| Special Appropriation..... | ..... | ..... | ..... | \$8,500.00 |

| RECEIPTS | Morrill, State Maintenance and Current Funds | Smith- Lever | Trust | Special Appro- priation |
|---|---|-----------------|-------------|-------------------------------|
| Morrill Fund, 1862..... | \$2,500.00 | ..... | ..... | ..... |
| Morrill Fund, 1890..... | 50,000.00 | ..... | ..... | ..... |
| State Maintenance..... | 132,500.00 | ..... | ..... | ..... |
| Current Fund: | | | | |
| Department Sales..... | 25,258.14 | ..... | ..... | ..... |
| Dormitory Fees..... | 7,869.30 | ..... | ..... | ..... |
| Department Service..... | 1,707.35 | ..... | ..... | ..... |
| Laboratory Sales | 6,743.29 | ..... | ..... | ..... |
| Department Fees | 5,306.02 | ..... | ..... | ..... |
| Interest | 1,079.84 | ..... | ..... | ..... |
| Vocational Education | 2,261.48 | ..... | ..... | ..... |
| Tuition | 4,518.50 | ..... | ..... | ..... |
| Commencement | 471.05 | ..... | ..... | ..... |
| Miscellaneous | 853.66 | ..... | ..... | ..... |
| Smith-Lever Act of 1914.. | ..... | \$11,598.82 | ..... | ..... |
| Boarding Department..... | ..... | ..... | \$93,031.83 | ..... |
| Bookstore, Military and Fur- niture Sales..... | ..... | ..... | 15,630.38 | ..... |
| Advance Dairy Registry Fees ..... | ..... | ..... | 2,826.27 | ..... |
| Poultry Testing Fees..... | ..... | ..... | 738.30 | ..... |
| Agricultural Evening School Fees ..... | ..... | ..... | 300.00 | ..... |

AGRICULTURAL EXPERIMENT STATION

| EXPENDITURES | Adams, Hatch, Purnell | | |
|---|-----------------------|-----------------------|-----------------------|
| | Miscellaneous Funds | Feeding Inspection | Fertilizer Control |
| Salaries | \$37,954.80 | \$793.02 | \$2,422.38 |
| Labor | 11,477.33 | 208.33 | 325.00 |
| Traveling Expenses | 856.77 | 92.15 | 159.05 |
| Freight, Express, Cartage..... | 795.24 | 1.78 | 13.05 |
| Printing (other than office supplies) | 1,760.57 | 85.00 | 120.00 |
| Advertising | .50 | ..... | ..... |
| Auto Registration..... | 33.25 | ..... | ..... |
| Books and Periodicals..... | 366.32 | ..... | ..... |
| Membership Fees, etc..... | 44.19 | ..... | ..... |
| Laboratory Gas..... | ..... | ..... | 94.77 |
| Power (Furnished by State College) | ..... | ..... | 52.90 |
| Water (Furnished by State College) | ..... | ..... | 39.00 |
| Feeding Stuffs..... | 3,768.76 | ..... | ..... |
| Heat, Light and Power..... | 1,350.70 | ..... | ..... |
| Stationery (including postage)... | 284.17 | ..... | ..... |
| Laundry | 32.76 | ..... | ..... |
| Small Tools | 1,397.08 | ..... | ..... |
| Fertilizers | 1,206.90 | ..... | ..... |
| Scientific Supplies | 533.57 | 43.62 | ..... |
| Apparatus, Scientific | 92.82 | ..... | ..... |
| Other Supplies..... | 811.29 | ..... | ..... |
| Office Supplies..... | ..... | 10.50 | 7.50 |
| Tools and Machinery..... | ..... | 4.12 | 2.10 |
| Gasoline ..... | ..... | 31.59 | ..... |
| Water ..... | ..... | 19.50 | ..... |
| Miscellaneous ..... | ..... | 10.39 | 9.82 |
| Replacements | 671.35 | ..... | 112.91 |
| Repairs, Material and Labor (Buildings)..... | 1,122.18 | ..... | 17.40 |
| Hatch, Act of 1887..... | 15,000.00 | ..... | ..... |
| Adams, Act of 1906..... | 15,000.00 | ..... | ..... |
| Purnell, Act of 1925..... | 30,000.00 | ..... | ..... |
| State Appropriation..... | ..... | 1,300.00 | ..... |
| Fees ..... | ..... | ..... | 3,376.00 |
| Sales and Service | 6,788.95 | ..... | ..... |
| Interest | 95.13 | ..... | ..... |

Summaries Dealing with Certain Phases of Receipts and Expenditures for the Year Ending June 30, 1926

SUMMARY FOR THE YEAR.

| | |
|-------------------------------------|--------------|
| Balance on hand July 1, 1925..... | \$45,760 12 |
| Total income during year | 425,392 74 |
| | |
| Total | \$471,152 86 |
| Total expenditures during year..... | 410,875 23 |
| | |
| Balance on hand July 1, 1926..... | \$60,277 63 |

INCOME.

Income from Students:

| | |
|---|------------|
| Tuition fees | \$4,775 00 |
| Matriculation and incidental fees | 5,254 94 |
| Chemicals and laboratory supplies..... | 6,421 76 |
| Dormitory fees | 7,782 20 |
| Dining halls | 91,630 43 |
| Store sales | 11,095 55 |
| | |

\$126,959 88

Income from State and Nation:

| | |
|--|--------------|
| State—Maintenance | \$132,500 00 |
| State—Repairs and Improvements..... | 8,500 00 |
| Federal—Morrill Act of 1890 and Nelson Act of 1907 | 50,000 00 |
| Morrill Act of 1862 | 2,500 00 |
| Hatch Act of 1887—Experiment Station..... | 15,000 00 |
| Adams Act of 1906—Experiment Station..... | 15,000 00 |
| Purnell Act of 1923—Experiment Station..... | 20,000 00 |
| Smith-Lever Act of 1914—Extension..... | 11,598 82 |
| | |

\$255,098 82

Income from Other Sources:

| | |
|-----------------------------------|-------------|
| Department Sales and Service..... | \$34,824.06 |
| Interest | 1,174 15 |

Experiment Station:

| | |
|-----------------------------------|------------|
| Department Sales and Service..... | \$7,242 86 |
| Interest | 92 97 |
| | |

\$7,335 83

\$43,334 04

Total Income\$425,392 74

Receipts from Tuition:

| | |
|--|----------|
| Students taking course of one year or more | 517 |
| Students paying tuition (non resident in Rhode Island) at rate of \$50.00 per year..... | 96 |
| Amount of tuition paid | 4,775 00 |

EXPENDITURES.

Expenditures, Exclusive of Experiment Station and Extension Service:

| | |
|---|------------|
| Advanced Herd Registry | \$2,481 89 |
| Advertising in Publications | 323 00 |
| Apparatus | 2,080 24 |
| Auto Service | 475 40 |
| Boarding | 91,568 79 |
| Books and Periodicals | 1,182 94 |
| Commencement | 1,545 53 |
| Construction and Repairs | 8,233 81 |
| Construction and Repairs, Special..... | 4,155 50 |
| Dormitory and Land Rental | 4,376 34 |
| Electric Current Furnished Outside College..... | 948 97 |
| Entertainment | 1,208 65 |
| Evening Schools | 256 29 |
| Feed | 7,935 39 |
| Fertilizers | 702 74 |
| Freight and Express | 967 37 |
| Fuel | 11,777 11 |
| Furniture | 1,891 91 |
| Furniture Sales | 1,143 00 |
| Gasoline and Oil | 2,205 40 |
| Janitors' Supplies | 739 84 |
| Labor (Engineers, Poultrymen, Farm, etc.)..... | 31,525 30 |
| Labor (Undergraduate, Exclusive of Boarding).. | 6,296 65 |
| Laboratory Supplies | 6,580 87 |
| Live Stock | 50 00 |
| Military Sales | 2,479 90 |
| Postage, Stationery and Printing | 5,059 76 |
| Poultry Testing | 314 12 |
| Refunds | 117 20 |
| Salaries | 123,253 98 |
| Seeds and Plants | 471 45 |
| Stable Supplies | 32 75 |
| Store. | 11,282 41 |
| Telephone and Telegraph | 1,085 92 |
| Tools and Machinery | 205 46 |
| Traveling | 1,671 31 |
| Miscellaneous | 3,663 49 |

\$340,290 68

| | |
|--|--------------|
| Expenditures, Experiment Station | 58,064 80 |
| Expenditures, Extension Service | 12,519 75 |
| | <hr/> |
| | \$410,875 23 |

ANALYSIS OF BALANCE, JULY 1.

| | 1925 | 1926 |
|--|--------------|--------------|
| Morrill Fund of 1890 ..... | ..... | ..... |
| Morrill Fund of 1862 ..... | ..... | ..... |
| Smith-Lever-Fund—Extension Service ... | ..... | \$632 50 |
| Hatch Fund—Experiment Station ..... | ..... | ..... |
| Adams Fund—Experiment Station..... | ..... | ..... |
| Purnell Fund—Experiment Station ..... | ..... | ..... |
| State—Maintenance | \$39,381 47 | 42,751 12 |
| State—Repairs and Improvements..... | 3,087 32 | 7,433 82 |
| Current Fund | 11,184 15 | 17,190 98 |
| Trust Fund | 7,744 19 Dr. | 8,234 21 Dr. |
| Miscellaneous—Experiment Station | 2,160 63 Dr. | 1,496 58 Dr. |
| Reserve Fund | 2,000 00 | 2,000 00 |
| | <hr/> | <hr/> |
| | \$45,760 12 | \$60,277 63 |

STUDENT ACTIVITIES ACCOUNT.

| | | |
|---|-------------|-------------|
| By Balance brought forward from last year.. | ..... | \$1,513 24 |
| Receipts during year: | | |
| (a)—Student taxes | \$9,575 00 | |
| (b)—Season tickets | 267 20 | |
| (c)—Interest | 33 40 | |
| | <hr/> | \$9,875 60 |
| To Baseball | \$2,447 22 | 810 40 |
| Basketball | 1,949 30 | 456 40 |
| Beacon | 746 00 | ..... |
| Debating Society | 166 39 | 30 94 |
| Football | 5,530 86 | 4,061 75 |
| Lecture Association | 350 00 | ..... |
| Miscellaneous Hospital Expenses, etc.... | 1,636 26 | 1 81 |
| Tennis | 102 03 | 6 25 |
| Track | 1,866 78 | 386 07 |
| Young Men's Christian Association..... | ..... | 9 75 |
| Young Women's Christian Association.... | 25 00 | ..... |
| Young Women's Athletic Association.... | 295 60 | 99 62 |
| Young Women's Student Government.... | 30 00 | 1 03 |
| Balance on hand September 1, 1926..... | 2,107 42 | ..... |
| | <hr/> | <hr/> |
| | \$17,252 86 | \$17,252 86 |

ALUMNI STUDENT LOAN FUND.

| | | |
|--|------------|------------|
| By Amount of contribution to July 1, 1924..... | ..... | \$741 88 |
| By Amount of contribution received 1924-1925 ..... | ..... | 210 50 |
| By Amount of contribution received 1925-1926 ..... | ..... | 242 20 |
| By Amount of accrued interest to July 1924.. ..... | ..... | 132 37 |
| By Amount of interest received 1924-1925..... | ..... | 11 83 |
| By Amount of interest received 1925-1926..... | ..... | 39 21 |
| To Amount of loans out July 1, 1926..... | \$247 18 | ..... |
| Cash on hand July 1, 1926..... | 1,130 81 | ..... |
| | \$1,377 99 | \$1,377 99 |

FREDERICK ROY MARTIN STUDENT LOAN FUND.

| | |
|---|----------|
| By amount of fund received June, 1925..... | \$150 00 |
| By amount of interest received 1925-1926..... | 23 05 |
| | \$173 05 |

SCHOLARSHIP FUNDS.

| | |
|---|----------|
| Rhode Island State Grange..... | \$100 00 |
| To award in Agriculture to Everett Percy Christopher..... | \$50 00 |
| Home Economics to Constance Katherine | |
| Knobelsdorff | 50 00 |
| | \$100 00 |
| Rhode Island State Federation of Women's Clubs..... | \$100 00 |
| To award to Mabel Evangeline Dimond..... | \$50 00 |
| Hazel Elizabeth Gage..... | 50 00 |
| | \$100 00 |
| Triangle Club of Kingston..... | \$50 00 |
| To award to Jean Isabel Robertson..... | \$50 00 |
| | \$50 00 |

CAMPUS CLOCK FUND.

| | |
|----------------------------------|----------|
| By class gifts from seniors..... | \$226 41 |
| By accrued interest | 177 81 |
| | \$404 22 |

CAMPUS GATEWAY FUND.

| | |
|----------------------------------|----------|
| By class gifts from seniors..... | \$350 00 |
| By accrued interest | 24 98 |
| | \$374 98 |

THIRTY-NINTH ANNUAL REPORT OF THE
DIRECTOR OF THE AGRICULTURAL
EXPERIMENT STATION.*

PRESIDENT HOWARD EDWARDS,

Rhode Island State College.

DEAR SIR:—

Hereby are submitted brief statements of such results of research obtained during 1926 as will serve to indicate the nature of the more important lines of work.

Such a report of progress should be understood to present ideas which may need to be modified in the future as the researches are continued. Nevertheless, it seems desirable to transmit annually a single paragraph concerning the impressions derived from each project even if some readers do attach too much importance to certain of the indications.

Weather

Detailed records may be found in the Climatological Data, New England Section, of the U. S. Department of Agriculture Weather Bureau.

The latest spring frost was on June 17, when the temperature at crop level was 31°, and there was some injury to potatoes, tomatoes, less to buckwheat, and very little to corn. The earliest autumn frost was on October 11, when the temperature was 31°; melons and squashes were then considerably damaged, Japanese millet and tomatoes less damaged, while the damage to peppers and soybeans was very little. The next morning the temperature dropped to 29° when not only the soybeans but the dahlias were frosted. On October 21, with a temperature of 21°, celery and cauliflower were perhaps 15 per cent frosted. Not until November 11, at 14°, was annual sweet clover a third-part frosted.

April was the coldest for that month since 1917. The rainfall was only 2.28 inches, or 2.46 below normal. May was also cold, but

*Contribution 342. In Bulletin of Rhode Island State College, Vol. XXII, February, 1927.

the record was not broken. On Kingston Hill the average minimum temperatures were 32.6° and 42.8° for April and May, respectively; and the highest maximum temperature ever recorded there was 99° on July 22. The rainfall was, in general, favorably distributed, although during four weeks from June 16 there was only 0.42 inches.

Organic Matter for the Soil

The four winter legumes were planted as usual in 1925. In the spring of 1926, the red clover exhibited a good stand, sweet clover had heaved badly but was alive, vetch and alfalfa were practically dead. As usual a low-nitrogen fertilizer was used after plowing in the cover crops, so as to allow opportunity for the different legumes to show their relative nitrogen-fixing values. Sweet corn, planted May 5, was the crop used to demonstrate possible differences produced by the four legumes. The largest yield, as usual, followed the red clover; but the vetch rather than the sweet clover ranked second, although this has not been so in most years.

Based on the average of the last seven years, where corn is grown continually with complete fertilizer, 49 bushels of corn were produced with 20 pounds of nitrogen per acre each year, and with a legume cover crop plowed in; 50 bushels resulted from 60 pounds of nitrogen and a rye cover crop plowed in, and 44 bushels from 60 pounds of nitrogen and no cover crop.

With ample fertilizer, it was immaterial to tomatoes, and to early cabbages following late celery, whether the organic matter was supplied to the rotation in stable manure, green manure or peat. Early lettuce, late beets and late spinach have never made near normal growth on the peat plats. Celery also is inferior on the peat plats and does not yield so well with green manure as with stable manure. Also a compost of the refuse of the rotation together with peat, straw and a little manure has been introduced as a source of organic matter.

Crops planted during the latter half of July, to find out which produces the largest amount of material above ground, have yielded the following as an average of the last eight years:

| | Dry matter per acre. Tons. | | Dry matter per acre. Tons. |
|-----------------------|----------------------------------|------------------|----------------------------------|
| Japanese millet | 1.68 | Barley | 1.34 |
| Corn | 1.38 | Buckwheat | 1.14 |
| Pearl millet..... | 1.35 | Sudan grass..... | 1.06 |
| Sunflower | 1.35 | | |

Planted for green manure during the latter half of July each year, red clover, cow-horn turnips and soybeans are plowed under in the autumn, and their effect on both early lettuce and beets compared with that of red clover, rye and timothy turned under in the spring. Most of the yields were slightly larger on the fall-plowed plats.

Where ten cords of only stable manure are used annually in comparison with the only green manure and fertilizer, there was a seven-tenths increase in weight of cantaloupes on the stable-manure plat.

In the case of the following three-year rotation: 1, beets before cauliflower; 2, spinach before carrots; 3, eggplant; as large crops were produced when cauliflower was replaced with clover and Italian rye-grass for plowing in with 16 tons of manure, as with 32 tons without the green manure, provided plenty of fertilizer was used. For the second time, in the early season, 32 tons of manure produced no more nitrates than did 16 tons, when both applications were used with equal amounts of complete fertilizer. The eggplant nearly failed in 1926. With 16 tons of manure, 1500 pounds of a 5-12-2 fertilizer were used on the first crops. Less nitrates than in this mixture depressed growth of both beets and spinach, and less phosphoric acid depressed only the beets. For the second crops, on only the manure residues, 1400 pounds of a 6-8-6 ratio were ample.

Efficiency of Fertilizers and Manures

During nine continuous years, mixed hay with an annual top-dressing of 75 pounds of phosphoric acid, and of potash in wood ashes has yielded, with the different nitrogenous topdressings, the following average weights, about one-third of which is still clover:

| | Tons of hay per acre. |
|--|--------------------------|
| Horse-stable manure, 4 cords..... | 2.94 |
| Nitrate of soda, 50 lbs. N. an acre..... | 3.13 |
| Nitrate of soda, 25 lbs. N. an acre..... | 2.72 |
| Cyanamid, 25 lbs. N. an acre..... | 2.49 |
| Sulphate of ammonia, 25 lbs. N. an acre..... | 2.48 |

Where more lime is used with sulphate of ammonia than with nitrate of soda, as is necessary if acidity is reduced to the same amount, the yield of mixed hay from a new spring seeding was about the same from the two nitrogen carriers. In the first crop the growth was about 20 per cent timothy, 60 per cent alfalfa, 10 per cent other clovers, and 10 per cent weeds; in the second crop it was 90 per cent alfalfa and 10 per cent red clover.

The fluctuations in nitrates in a fallow, cultivated soil supplied with a normal spring application of fertilizer were determined in three levels totaling 24 inches of Merrimac silt loam above the gravel. Rains of from 1 to 3 inches during the summer were followed by temporary disappearance from the 24 inches of soil, with a subsequent return. In the late summer, similar but more persistent disappearances occurred—not associated with any considerable rainfall—which were replaced persistently during the autumn.

By plowing in with grass sod, two and a fourth times as much phosphorus in floats as was applied the following spring in acid phosphate, about the same yields of corn were obtained with each carrier. Where the soil had been limed to neutrality formerly, but where the pH was 6.5 in 1926, the corn showed manganese chlorosis except where Thomas slag phosphate and an abundance of soluble phosphorus were supplied.

Where the different commercial potash salts are so used that not only potassium, but the associated elements also, have an opportunity to exert an influence, miscellaneous crops were compared. Contrary to the usual results, magnesium-potassium sulphate was not inferior to the potassium sulphate. Sulphur was of no more use than chlorin. The sodium in kainit was useful in supplementing an insufficient amount of potash for tomatoes, cabbages, and rutabagas, but not for parsnips and potatoes.

The discovery was made last year that on plats which had been made neutral by liming, crops which had become chlorotic recov-

ered when sprinkled with manganous chloride or sulphate. This year 30 pounds of manganous sulphate per acre, which were added in the fertilizer, were beneficial; but complete effects were obtained only by subsequent sprinkling per acre with 8 to 15 pounds diluted with 1000 parts of water. A two-tenths to five-tenths increase in yield was obtained by adding manganese salts to oats, millet, spinach, beets, lettuce and corn. Onions were increased fivefold. Manganese chlorosis was not observed on neutral plats with celery, carrots, tomatoes, cabbages, nor on any crop growing on soil which had not been neutralized at some time. A chlorotic crop had a lower manganese percentage than a normal one.

As usual on the early market-garden crops, 1500 pounds of fertilizer, with a 5-12-2 ratio in 1926, were a decidedly better supplement to 16 tons of stable manure than an additional 16 tons of manure instead of fertilizer.

In a dairy rotation where the manure used annually is now equivalent to about 330 cow-days, the smallest yield of mixed grass and clover hay was 2.32 tons. This was with manure containing sawdust as bedding. Where this is supplemented with acid phosphate or with muriate of potash, or where straw bedding is used, the yield was increased a fifth. On one plat, sufficient fertilizer alone is applied to grow crops as large as those produced with the sawdust manure.

The season's test of methods of applying by hand 1600 pounds of about a 5-8-8 fertilizer to potatoes indicated little difference whether the fertilizer was broadcasted in the furrow and mixed with the soil; or placed continuously in the bottom of the furrow with soil on top; or, similarly above the seed pieces and some soil. When broadcasted before furrowing, however, the yield was about a tenth low.

Plant Differences and Needs

In the no-manure rotations, the mixed hay with clovers, which were seeded after the late potatoes of 1924, weighed 3.3 tons an acre and was three-fourths clover. The fertilizer topdressing, which was most economical, was equivalent to a half ton of a 4-6-8 ratio. A reduction in the amount of any of the three ingredients resulted in a decreased yield, and a reduction of the potash also seriously decreased the proportion of clover.

Following corn, the Irish Cobbler potatoes yielded 300 bushels with 1800 pounds of a 6-8-8 fertilizer ratio. Subsequently, the land is seeded down for four years with 15 pounds of inoculated alfalfa, and 3 pounds of orchard grass after having applied, then, a ton of ground limestone, 300 pounds of acid phosphate and 100 pounds of muriate of potash. One, two and three years following similar seedings, the annual yield of hay was from 3.8 to 5.1 tons, with from 50 to 80 per cent of alfalfa in the first cuttings. The spring topdressing has been equivalent to 1000 pounds of a 2-10-10 fertilizer.

With 16 tons of horse-stable manure, except that only the cabbages did not have any manure, 1500 pounds of a 5-12-2 fertilizer were used. By comparing the yields with this fertilizer and with less of each of the three ingredients, separately, it was seen that there was enough potash for all the early crops. A reduction in the ammonia caused less yields of cabbages, beets and spinach, but not of lettuce; the latter being more depressed than the other crops when phosphoric acid was reduced. Evidence which has accumulated during a decade on the silty loam soil favors a 4-12-2 ratio for lettuce, and a 6-12-2 ratio for the other early crops, as a supplement to 16 tons of manure. For the second crops, 1400 pounds of a 6-8-6 fertilizer ratio were used to supplement the residues of the spring applications of manure and fertilizer chemicals. A separate reduction in the amount of each ingredient did not depress the growth of late spinach, but a reduction of only nitrogen depressed beets and celery yields. The cabbages and tomatoes were also grown with green manures instead of stable manure in the rotation, using 2500 pounds of a 5-8-4 fertilizer ratio in two applications, which proved to be enough. As usual, the cabbages yielded about the same with green manure as in the stable-manure rotation, but the tomatoes yielded more with the green manure. Celery received with green manures, 2500 pounds of a 4-8-8 fertilizer ratio; a reduction in only phosphorus depressed the yield. The stable-manure plats outyielded the green-manure plats as is usually the case.

A Los Angeles strain of Wonderful or Iceberg lettuce was tested as a greenhouse crop and proved unsatisfactory, as it grew slowly, did not attain large size, and made very few heads. The previous

success was with a quite different eastern strain of large crimped-leafed head lettuce.

Tomatoes, started in midsummer in the greenhouse and fruited during midwinter, again yielded a satisfactory winter crop, which sold readily at a good price. The results to date with winter vegetables have been incorporated in Bulletin 205.

Numerous crops were grown under like field conditions, the amounts of the carriers of each fertilizer nutrient being the only purposely varied factor. The proportion of phosphorus, potassium and nitrate-nitrogen found in the juice of the growing plants was again correlated with the amounts of these nutrients added to the soil. As soil temperature decreased, and growth measurements indicated retarded developments, the concentration of the above nutrients materially increased. Similarly, on soil which had been neutralized, retarded growth due to an insufficiency of manganese and the accompanying chlorosis, was reflected in the juice by a marked increase of nitrate. Different crops varied greatly in the rate at which they removed nitrates. On an area where fertilizer is uniform, on July 22 onions and full-grown lettuce had left the most nitrate in the soil, followed by beans, corn and mangels; the latter had left less than a fourth as much as onions. Again, the amount of nitrates on August 10 was in the following decreasing order under, tomatoes, potatoes, parsnips, cabbage and rutabagas, all of which were planted about the same time with uniform fertilizer.

The moisture in the surface soil, representing the averages on seven dates under various crops, equalled 17 per cent where no special provision is made for organic matter, 21 per cent where green manures are used, 22 per cent where 16 tons of stable manure are applied each spring, and 25 per cent with 32 tons.

The following cantaloupes in a comparison are arranged in the order of their earliness: Miller's Cream, Emerald Gem, Bender's Surprise, Heart's of Gold.

There was not much difference in yield between Red Wethersfield and Yellow Globe onions, but Japanese Ebenezer yielded a fourth less.

In a comparison of Hubbard squashes the blue variety yielded a sixth more than the green variety from the same seedsman. In 1925, it yielded three times more.

A comparison of sweet corn varieties planted May 5 furnished the following:

| | When ready for first picking. | No. of 100 ears an acre. | Cwt. of ears an acre. | Average weight of ear. Pounds |
|-----------------------|-------------------------------------|-----------------------------|--------------------------|--|
| Early Dighton..... | Aug. 6 | 113 | 35 | 0.31 |
| Early Surprise..... | Aug. 6 | 61 | 22 | 0.36 |
| Golden Swift..... | Aug. 6 | 111 | 23 | 0.21 |
| Columbia | Aug. 10 | 84 | 35 | 0.42 |
| Sunshine | Aug. 16 | 64 | 24 | 0.38 |
| Catawba | Aug. 20 | 136 | 61 | 0.45 |
| Golden Bantam..... | Aug. 23 | 125 | 42 | 0.34 |
| Whipple's Yellow..... | Aug. 23 | 93 | 53 | 0.54 |
| Buttercup | Aug. 26 | 114 | 57 | 0.50 |

Eleven potato crosses supplied from Presque Isle, Maine, by the United States Department of Agriculture, yielded of U. S. No. 1 size, from 218 to 430 bushels. Under the same conditions the Green Mountain yielded 325 bushels; the Russet Rural an eighth less than the latter. Two of the crosses have averaged about 400 bushels during three consecutive seasons.

In a comparison of early tomatoes, the harvest of No. 1s up to August 12, decreased in the order of the following varieties: Early Sunrise, Shirley's Bonny Best, Red River, Langdon's Earliana, Canadian, Buckbee's Earliest Market, Langdon's Bonny Best, Comet, Fordhook First. Including pickings up to August 26, both Bonny Best varieties were among the first.

To ascertain their relative response to each of the three fertilizer ingredients there has been assembled in appropriate plats the following fruits: Cuthbert, Herbert, June and Latham red raspberries; Columbian, Gregg, Plum Farmer and Cumberland black-cap and purple raspberries; Snyder, Eldorado, Erie and Mersereau blackberries; and Delaware, Concord, and Niagara grapes. A few plants of other leading varieties of these fruits and of drupe fruits have been secured to enable observations on their diseases and on their suitability under our coastal climatic conditions. A fruit survey emphasized a need for the foregoing service.

It is too soon to report on eight selected and hybrid blueberries, and the influence on them of soil reaction and rye cover crops.

Included in the annual inspection of fertilizer materials were 76 brands of complete mixed fertilizer, representing 29 grades. Even had the ratios of the three fertilizer ingredients been represented by certain whole numbers which have been suggested, there were represented 20 different "ratios"; whereas only eight have been recommended as sufficient for New England. In fact only 6 ratios were represented by as many as 5 brands each; these were 5-10-6, 4-14-4, 5-8-8, 8-8-6, 6-10-6 and 4-10-6; only the first and third of which were recommended for New England.

In the annual inspection of feeding stuffs, 118 samples were analyzed, and 13 per cent of the determinations were below guaranties.

Effect of Crops on One Another

On the area used to determine the effect of two years' growth of sixteen different crops on a single crop grown subsequently, timothy was established over the whole area and was left until 1927 to complete its message.

After eight seasons' growth of late cabbage following four different kinds of early vegetables, under conditions intended to be suitable, the average yields of cabbages decreased after the following order: beets, spinach, potatoes and peas. In 1926 the spinach was replaced by early cabbages and the single late crop was New York lettuce instead of cabbages. The growth was less poor after potatoes, but was not satisfactory anywhere.

With 2500 pounds of a 5-8-4 fertilizer ratio and green-manure crops the yield of early tomatoes was larger following fall buckwheat supplemented with winter rye than following fall-plowed millet and Italian rye-grass; although in 1925, the latter was followed by the best yield.

Timothy, rye and oats are compared as green manures for their effects on late celery. Only the oats are preceded by rape in the autumn, and all green manures are liberally fertilized. The oats are the most nitrogenous, and for the second season of study the nitrate content of the soil decreased with oats, rye and timothy. The highest nitrates following oats, however, have been correlated with the poorest celery yields.

Modification of Sour Soil

A dozen easily tillable soils, most of which were in sod, were sampled in the early spring of 1925, before fertilizer was applied, from different parts of the state, representing about 2000 acres. The analysis of the surface soil, on a dry matter basis, showed plainly that they represented medium and high acid-soil conditions, and that most of them needed modification by the addition of lime and phosphorus before they would be suitable for such farm crops as alfalfa, mangels, cabbage, rape, red clover, sweet clover and timothy. The conditions in two-thirds of them were highly acidic, having a pH of less than 5.3, a calcium-oxid absorption by the Jones method of over 2000 pounds per 2 million pounds of soil, and over 500 p. p. m. of active alumina (soluble in 0.5 *N* acetic acid). Furthermore, in two-thirds of the soils there was less than 25 p. p. m. of phosphoric acid soluble in 2 *N* acetic acid, an amount which may, without doubt, be considered as low. The total nitrogen ranged from 0.138 to 0.281 per cent, which should yield a fair amount of available nitrogen after the soils had been put into condition for the most economical use of fertilizer.

To the plats which receive high-calcium or high-magnesium hydrate or carbonate, the equivalent of 3000 pounds of calcium oxid was applied in the autumn of 1925, as in 1924. This resulted in alkaline soil in 1926, and to manganese chlorosis of the crops, as was expected, regardless of the form of lime. The crops were normal only where manganese was added; and the color, but not the yield, was normal where lime has not been added.

Tests of the toxicity to crop plants, of aluminum salts in solution, showed that lettuce, beets, timothy and barley were sensitive; radishes, sorghum, cabbage, oats and rye were medium sensitive, and corn, turnips and redtop were relatively resistant to aluminum injury. These results agree fairly closely with the findings regarding the acid-soil tolerance of these crops, those most resistant to aluminum poisoning in solution being likewise tolerant of acid-soil conditions.

In connection with numerous plats of lawn or putting-green grasses receiving various fertilizers, acid-soil conditions have been maintained by an annual, early spring application of 250 pounds each of sulphate of ammonia, acid phosphate and muriate of potash

an acre; and such troublesome weeds as plantain, dandelion, chickweed and crab grass have been entirely eliminated thereby from competition with bent and fescue grasses. Even a partial survey of the putting greens of the state has shown that in most cases this desirable situation has not been attained.

Large amounts of acid phosphate, which for a time reduce toxicity caused by aluminum, again proved useful in modifying the soil in preparation for certain low-resistance crops. Such an application to the peat plat, for example, was followed by celery which was more-nearly normal than ever before.

Retailer and Consumer Preferences for Apples

Similar questions, answered by the wholesalers as in Bulletin 203, were submitted orally to retailers, who differed regarding apple varieties only in slightly favoring Red Astrachan over Early Williams as a summer variety. They did not furnish any additional information concerning grades, packs, etc., to that gained from the wholesalers.

Replies to a questionnaire to housewives which was distributed widely in Providence, indicate that half of the apples are eaten raw and the remainder used for cooking. The individual preferences for eating apples were much more diverse than in case of cooking apples, which were centered largely on Baldwins and Rhode Island Greenings. Half of the housewives reported that they could store a bushel of apples.

As a result of a December test of the comparative merits of twenty-four different local varieties of apples, the following received prominent mention for different purposes:

| For sauce, | As baked apples, | For pies, | For eating raw, |
|----------------|--------------------|--------------------|-----------------|
| Peck Pleasant | Yellow Belleflower | Westfield | McIntosh |
| Baldwin | Northern Spy | Winter Banana | Northern Spy |
| McIntosh | Winter Banana | R. I. Greening | Delicious |
| R. I. Greening | R. I. Greening | McIntosh | Hubbardston |
| N. W. Greening | Baldwin | Yellow Belleflower | Winesap |
| Sutton | King | Roxbury Russet | R. I. Greening |

Census Material on Rhode Island Agriculture

For details, reference should be made to Bulletin 206. Arrangements were made by which for the first time (1925) the Federal census was compiled by towns. A short historical statement is

given, tracing the period of forest clearing to the advent of outside agriculture competition due to the development of the refrigerator cars by railroads. With the exception of highly perishable products there has been a decrease in production. The production of eggs and milk, particularly, has increased, although the number of producing units has decreased.

Use of Time by Homemakers

Women in various parts of the state cooperated by keeping a complete record of their time for a week or two at different seasons of the year. It is hoped that a comparison and study of a sufficient number of these records may supply suggestions for improvements in planning, management or equipment.

It was found by pedometer measurements that the women students at the Home Management House walked at the rate of a mile an hour during the walking and standing operations connected with homemaking. For example, the preparation and serving of simple meals per day took 4.5 hours and required walking 2.8 miles, and for more elaborate meals 8.3 hours and 6.8 miles.

Answers from 191 Farm-Bureau women to a short questionnaire showed that they owned 717 pieces of electrical equipment of sixteen different kinds. The articles most frequently reported were as follows: flat iron, 177; vacuum cleaner, 127; toaster, 108; washing machine, 72; and sewing machine, 37. The most favorable comments were on flat irons, vacuum cleaners and washing machines. Portable heaters were considered generally unsatisfactory; percolators received a number of criticisms, and the attachments of vacuum cleaners were seldom used. Financial reasons were the chief ones given for not owning more electrical equipment.

Inheritance in Poultry

The inheritance studies in crossing the Brahma and Leghorn breeds continued to show, in both the first and second generations, body-weight intermediate between the breeds, but nearer to the Brahmas. Especially the early growth stimulation in the first generation cross has proved of interest to broiler producers. In the breeds concerned, bone growth appeared to stop between the fifth and seventh month, but body-weight increased until the tenth

month. A small group of second generation female crosses attained a weight fully equal to that of Brahmas.

The results of the analysis of the completed material on the inheritance of egg-weight can be reported more clearly at a later date.

Diseases in Poultry

In the rearing of turkeys, moving the poults to new ground every week has again proved effective against blackhead, as less than 10 per cent of the poults died of blackhead. There was considerable death of the poults, however, apparently due to bacillary white diarrhea.

This latter disease in chicks was reduced again by using hypochlorite in the drinking water. Among commercial solutions of this material are "Zonite" and "B. K.". One part of these to 30 and 90 parts of water, respectively, reduced to one-half the mortality of infected chicks. Less effective results were obtained against fowl typhoid.

The continued work on fowl paralysis did not yield results of sufficient definiteness to warrant further information at this time.

Publications

The development of toxic conditions. Jour. Amer. Soc. Agronomy 18: 127-130.

The nitrate content of the Rhode Island experimental plats as influenced by fertilizers and crops. Jour. Amer. Soc. Agronomy 18: 888-896.

Fertilizer experiments with gladiolus at the Rhode Island Agricultural Experiment Station. Off. Bul. Amer. Gladiolus Society 3: 28-29.

Concerning wholesale market preferences for fruits and vegetables in Providence, R. I. R. I. Agr. Expt. Sta. Bul. 203, 38 p.

The effect of chemicals in the control of poultry diseases. I. Preliminary experiments with bacillary white diarrhea. Poultry Science 6: 36-41.

The adaptation of certain colorimetric methods to the estimation of nitrates, phosphates and potassium in plant solutions. Plant Physiology 1: 191-199.

Thirty-eighth annual report of the station. Bul. of Rhode Island State College 21: 38-53.

Inspection of feeds. Annual Feed Circular, April, 1926. 8 p.

Inspection of fertilizers. Annual Fertilizer Circular, September, 1926. 14 p.

Comparative studies on *Salmonella Gallinarum* and *Salmonella Pullorum*. R. I. Agr. Expt. Sta. Bul. 204, 30 p.

Nutrient needs of greenhouse tomatoes. R. I. Agr. Expt. Sta. Bul, 205, 16 p.

Rhode Island agriculture, a statistical description. R. I. Agr. Expt. Sta. Bul. 206, 123 p.

Cilia as Pseudo-Spirochaetes. Trans. Amer. Microscopical Society 45: 302-305.

The relation of manganese and iron to a lime-induced chlorosis. Soil Science 22: 437-446.

Cultural and antigenic studies on *Salmonella Gallinarum* and *Salmonella Pullorum*. Jour. Bacteriology, 13: 129-146.

Respectfully submitted,

BURT L. HARTWELL,

Kingston, R. I.,
January 17, 1927.

Director.

REPORT OF THE EXTENSION SERVICE, 1926

PRESIDENT HOWARD EDWARDS,

DEAR SIR:

I present herewith the Annual Report for the twenty-fifth year of the Rhode Island State College Extension Service.

Administration*Organization*

During the past year the work of the Extension Service has been conducted under eight project headings. Under each of the projects long time programs are being developed. In the past the County Agents' programs have been developed on an annual basis with the programs having a more or less complete change in each succeeding year. At present these programs are being closely lined up with the projects in charge of the different Specialists and developed along the line of continuity of purpose. These programs are being developed as the result of joint conferences between the workers in the various lines connected with the College, the United States Department of Agriculture, State societies, and local committees of the farm bureaus.

Cooperation With Other State Departments

In cooperation with the State Board of Vocational Education there was conducted a series of extension meetings. These meetings were held in nine different communities. The subjects discussed were: feeding of dairy animals, care and management of the orchard, growing of legumes, soil care and management, crop rotations, handling poultry for profit. These meetings were a direct means of arousing considerable interest in the development of our long time program and resulted in changes of practice on the part of many of those in attendance.

Other Organizations Cooperating

The breed associations of the State are rendering valuable assistance in the development of the better bull campaign.

Sources of Extension Revenue

The following financial statement is based on the report made to the United States Department of Agriculture for the fiscal year ending June 30, 1926:

SMITH-LEVER FUNDS

| | |
|---|-------------|
| Federal Smith-Lever | \$11,213 92 |
| Supplementary Federal Smith-Lever | 384 90 |
| State Smith-Lever Offset | 1,213 92 |
| Supplementary State Smith-Lever | 384 90 |

UNITED STATES DEPARTMENT OF AGRICULTURE FUNDS ALLOTTED TO
RHODE ISLAND

| | |
|-------------------------------------|------------|
| For County Agent Work..... | \$3,300 00 |
| For Home Demonstration Work..... | 3,170 00 |
| For Boys' and Girls' Club Work..... | 1,200 00 |

New Laws Affecting Extension Work

At the January session of the State legislature a bill was passed establishing the office of State Finance Commissioner. Under this act it is required that a report be made to the Commissioner of Finance on or before December 15 of each year, giving in detail all expenditures from State moneys. This requirement will necessitate some changes in the financial accounting of the various farm bureaus.

Important Additions to Offices and Equipment

Additions to the equipment during the past year include exchange of old models of graphotype and addressograph for an up-to-date equipment, a number of sectional bookcases, a portable electric sewing machine, a letter folding machine, a delineascope for the use of film strips, a letter sealing machine, and additions to the filing equipment.

Personnel

During the fiscal year of July 1, 1925, to June 30, 1926, there have been several changes in personnel. Miss Sara E. Coyne was appointed as State Home Demonstration Leader on October 1, this position having been vacant since the resignation of Mrs. Hope Browne Minor on April 30, 1925. Mrs. Vivian P. MacFawn resigned as Home Demonstration Agent in Northern Rhode Island,

effective September 15, 1925. Miss Abbie M. Russell was appointed as her successor. There have been no changes in the personnel of the County Agricultural Agents.

In the Extension Office at the College Miss Helen Lowe Urquhart resigned as Secretary to the Director on August 1, 1925, and was succeeded by Miss Anna L. Clark, who had been stenographer in the Home Economics office since January, 1921. Miss Marjorie Bedell, stenographer in the Club Work office, resigned in November, 1925, and was succeeded by Miss Pasqualina DeSista. Miss Felice DeSista was appointed as stenographer December 1, 1925.

Methods Used for Increasing Efficiency of Extension Workers

Weekly meetings of the Extension Staff and monthly meetings of the County Agents have been held during the year. At these meetings methods of presentation of subject matter have been discussed, also ways and means of developing community interest in permanent program development.

PUBLICATIONS

Publicity material has included the following bulletins:

- Extension Bulletin No. 43. "Constructing the Poultry House."
- Extension Bulletin No. 44. "Liming."
- Extension Bulletin No. 45. "R. I. 4-H Health Clubs."
- Extension Bulletin No. 46. "Better Bulls, Better Cows, Better Profits."

Much material relating to Extension work has been used by the newspapers of the State. The mimeographed sheet "Profit Pointers" has been sent to nineteen hundred individuals and to the newspapers of the State each month. This sheet contains short items and timely suggestions which are of general interest. Two other monthly sheets are issued, "The Service Sheet for Animal Husbandry", going to approximately nine hundred dairymen, and "Fruit Notes", which is received by six hundred persons interested in better fruit. That these monthly sheets are being read by the recipients is shown by the requests for publications to which attention is called in the sheets.

In addition to the work connected with the issuing of the publicity material mentioned above, special requests for information and assistance have necessitated the writing of twelve hundred and eighty-one personal letters by the Director.

Revision of Mailing Lists

During the year the mailing list has been checked and arranged according to projects, thus assuring the conservation of material by sending publications along special lines only to those who have expressed an interest in a particular subject by membership in societies or by written expression of desire for a definite type of subject matter material.

SUMMARY OF PROJECT WORK*County Agent Work*

There has been greater activity on the part of the County Agents during the past year than in the preceding year, as their reports show an increase in number of farm visits, number of different farms visited, increase in method and result demonstrations, and, although fewer Extension meetings were held, there was an increase in the total attendance at the meetings. More attention has been given to publicity material, two farm bureaus having started the publication of monthly papers during the year, and the other bureau has continued the issuing of the monthly sheet known as "Local Lightning". The outstanding items in the County Agents' programs are the material progress which has been made in the agronomy project, having for its purpose a greater supply of home grown protein feed, i.e., growth of more legumes. In this project there has been very material development of the alfalfa acreage and clover areas within the State. Constructive work has been done in the poultry project, the points stressed being better control of disease and improvement of the quality of the laying stock. The Agents have been active in the Better Bull Campaign. Surveys which are nearing completion indicate that nearly 50% of the herd sires in the State are scrubs and that approximately one-third of the calves raised are from these animals. These figures show that this project is one which should be pushed vigorously as one of the principle means of placing dairying in the State upon a better basis. The horticultural work has been confined to the various phases of fruit growing, orchard management having been stressed. An interesting home vegetable garden demonstration was carried out by the Eastern Rhode Island Farm Bureau. This demonstration proved an excellent object lesson in showing the

possibilities of a small area of land in contributing to the diet of the family. Much assistance which cannot be readily classified under either of the principal projects of the program, has been given to the farmers in each farm bureau district.

Home Demonstration Work

The long time program, covering a five year period, as developed at the State Office in clothing, foods and nutrition, home management, and health was presented, discussed, and accepted by a committee of women in each County.

Foods. Twenty-four groups throughout the State planned and carried on programs for home demonstration work in foods, nutrition, and clothing. The food score card leading up to meal planning and balanced diets was the general trend of the foods work. Sixty-two talks and demonstrations were given in food preparation. Fifty women have reported teaching others how to prepare the dishes demonstrated at the group meetings, thus developing the real object of these meetings.

Four hundred and three women have adopted improved practices in food preparation and nutrition. Canning demonstrations using three different methods were given by the State Leader. A county-wide meeting at the completion of the foods project was held in Northern Rhode Island. Reports of work done in various communities were given, but no definite results were observed. In Northern Rhode Island the Agent has cooperated with the State Board of Health, Child Welfare Division, in three communities. A series of meetings given by Dr. Gleason on child care were well attended. Miss Miriam Birdseye of the Washington Extension Office gave material aid in formulating the food project.

Clothing. Eighty-five demonstrations were given in clothing work. Renovation and stain removal work was taught in seven demonstrations, three by a commercial demonstrator and four by the State Leader. Five demonstrations on dyed work were given in Eastern Rhode Island and Southern Rhode Island.

Chair Caning, Basketry and Rush Seating. Chair caning, basketry, and rush seating demonstrations were given at three meetings in Northern Rhode Island. Thirty-two chairs were completed and eleven baskets made.

Miscellaneous. Talks were given at seven granges and before other organizations by the State Leader on Home Economics Extension Work. Cartoon circular letters on different subjects were prepared and sent out from the State office. Results proved very satisfactory, as the women report much interest in this type of circular letter. News articles were written for the Farm Bureau and local papers. Questionnaires were sent out to the women early in the fall asking the type of work in which they were most interested. Twenty-five per cent of the questionnaires were returned asking for more foods work.

The Rhode Island Agricultural Conference Home Economics Committee with the State Leader as chairman, formulated a program for the general conference held in February, 1926. Miss Marian Butters, State Leader in New Jersey, was the principal speaker.

Help has been given to various organizations, including Eastern States Home Bureau, Woonsocket Women's Clubs, and Granges, in the formulating of home economics programs.

In several groups miscellaneous programs were followed chiefly to arouse interest in the work. All of these groups have decided to take project work for the coming year.

The Northern Rhode Island Home Demonstration Agent prepared an exhibition for two fairs relative to better food habits. "The House of Health and Ill Health" proved very interesting to the people attending these fairs.

Outlook. The outlook for the coming year is very promising in that the women are asking for projects rather than miscellaneous programs. They are seeing the advantage of a completed piece of work. The clothing campaign, "Look Well in the Kitchen", planned at the annual conference to begin January first, is under way with interest on all sides. Looking ahead we hope to develop more projects in order to reach a larger number of women and thus accomplish more worthwhile work.

Boys' and Girls' 4-H Club Work

The enrollment in the 4-H clubs has continued to increase, the membership during 1926 totalling 4110 in comparison with 3022 in 1925 and 1523 in 1924. The number completing has also increased, 3111 carrying the projects through the year in 1926 as

compared with 2267 in 1925 and 1325 in 1924. There were this year 2499 girls enrolled and 1611 boys.

Further development of the 4-H health clubs was one of the outstanding features of the year and 2836 boys and girls were enrolled. The aim of these clubs is to teach growing boys and girls to recognize the outward appearances of good health and to encourage them to make every effort required to remedy any defects. In most cases this involves merely attention to diet, exercise and sleep, but in some instances the member finds that to bring his health score up to normal a doctor, dentist, or oculist must be consulted. Leaders report improvements in one or more points by practically every member enrolled.

The enrollment for the year included, besides the health clubs, foods clubs, 110; canning clubs, 21; clothing clubs, 505; garden clubs, 368; poultry clubs, 87; dairy clubs, 14; handicraft clubs, 169.

There are 193 4-H clubs scattered through 28 of the 39 towns and cities in the State. 186 of these clubs are in the rural districts or in the smaller villages.

Crystallization of the 4-H Club idea was most noticeable during the year, the groups now having reached the stage of enthusiasm where a growing momentum is evident, and new clubs are springing up without the persistent "selling" effort required in previous years.

The 1926 annual gathering of the leaders and older 4-H club members for one week, at Camp Edwards at the Rhode Island State College in June, was by far the most successful of the four Camps that have been held. Emphasis was given to rural recreation, and demonstrations were given throughout the week by John Martin of the Playground and Recreation Association of America.

The twelve Rhode Island 4-H champions, who represented the State at the interstate gathering of 4-H champions at Camp Vail, at the Eastern States Exposition, and who gave a series of demonstrations, illustrating the latest developments in the health, poultry, clothing, handicraft, and foods club work in the State, were rated highest in the success of their demonstrations of any of the thirteen eastern states represented.

A Small Fruits club and a "More Attractive Rooms" club are being successfully carried on for the first time.

Over \$1000 was offered in premiums for 4-H Club exhibits at the fairs in the State this year, and higher quality products were exhibited than in any previous years.

The general quality of the record books submitted at the end of the year showed a distinct improvement over past years and a study of the records indicated a general realization of the fact that the better methods in the agriculture and home economics projects, as demonstrated in the 4-H clubs, are leading to greater efficiency and satisfaction in the work of the home and greater profits in the agricultural projects.

Animal Husbandry

The work in Animal Husbandry has been centered upon the topics of herd improvement through better breeding and more economical production. In order to reach the first objective a better bull campaign has been started. The work at present is in the preliminary organization stage. Surveys of the dairy industry to show the character of the herds have been undertaken and material prepared showing the advantages of improved livestock. A few better bulls have been placed. The problems associated with better feeding methods have been considered in several series of Extension meetings, and material assistance has been given in the figuring of rations for dairy cows. As a result of the adoption of practices advised at these meetings many dairymen have reported considerable reduction in the cost of rations fed to their dairy herds. Record keeping is being stimulated through the herd test plan of work. At present there are eighteen herds under supervision in accordance with this plan.

Poultry

The important problems of the poultry industry in Rhode Island are closely related to disease control and better birds. The poultry specialist during the past year has devoted the major portion of his time to work associated with disease control. As the fundamental problem is to obtain healthy chicks, emphasis has been placed on the necessity for the control of Bacillary White Diarrhea, through testing of all birds that are to be used in breeding pens. In this work 8,169 birds showing 7.1% reactors were tested. The owners of the flocks tested pay a fee sufficient to cover cost of the work. Numerous requests are being constantly received for assist-

ance in the diagnosis of disease. In the majority of cases post mortem examinations have shown that these diseases are communicable and may be controlled in a large measure by more attention to sanitation. In order to teach the farmers how to increase their profits through the elimination of non-producers, culling demonstrations have been held at fairs and on a number of poultry farms. In order to maintain the poultry industry of the State on a paying basis emphasis must be placed upon increased economies in production through improved stock, disease control, and improved feeding.

Fruit Growing

Work in connection with fruit growing has been confined largely to the problem of an increased supply of home grown fruit. The solution of the problem has been sought through two channels; first, more attention to the care of the existing farm orchards; and, second, through increased plantings, especially of small fruits. Thirty-one demonstrations relating to better management have been given. This included work in fertilizer application, pruning, spraying, and thinning. These demonstrations were well attended and the questions asked at, and the inquiries received after the demonstrations gave indications of much interest in this type of work. The work on increased plantings, particularly of small fruits, has been mostly of an educational nature, having for its object the teaching of the necessity for more fruit in the diet and the possibility of producing it at home.

Agronomy

Work in Agronomy during the year past was confined almost entirely to the problem of increasing the production of home grown protein in an endeavor to reduce the expenditures for purchased feeds. As the success in growing the high protein plants, such as clovers and alfalfa, is to a large extent dependent upon soil reaction, much attention has been given to the testing of soils for lime requirements. Soil tests were made on ninety-two different farms and on a total of five hundred and sixty-one different fields. These tests show that an average application of 2400 pounds of limestone per acre is necessary to insure the growth of clovers. In the soil testing work it was planned to test the soils on a group of adjacent farms in order that the farmers would be in a better position to

cooperate in the purchase of lime than would be the case where no attention was paid to the grouping of farms in making the tests. The area of alfalfa seeding in the fall of 1926 was more than twice as large as in any previous fall. That this is an important problem may be judged from information collected from dealers in hay and grain during the past year. According to this information more than six hundred and fifty cars of alfalfa, clover, and mixed clover hay were brought into the State during the year. All of this should have been grown on Rhode Island farms.

Attention is being called to the necessity for the improvement of pasture lands through newspaper articles, meetings, and personal assistance to farm owners. The pasture project will receive more attention during 1927 than in 1926.

OUTLOOK

As stated in my report of last year, the most serious problem in the Extension Work at the present time is that connected with the financing of the County Agent Work. This problem will probably continue to be unsolved so long as the present method of financing the farm bureaus upon the basis of meeting State funds with local funds which must be provided by a large number of different towns is continued. If the field work of the Extension Service is to be placed on a firm basis, the financial problems associated therewith must receive serious consideration. There has been shown a very cordial spirit of cooperation in the work on the part of all parties concerned.

In closing I wish to express my appreciation of the cooperation of the County Agents and members of the Staff at the central office in their efforts to establish and develop long time programs of work.

Respectfully submitted,

G. E. ADAMS,

Director.